

How to Keep Well and Live Long

BY
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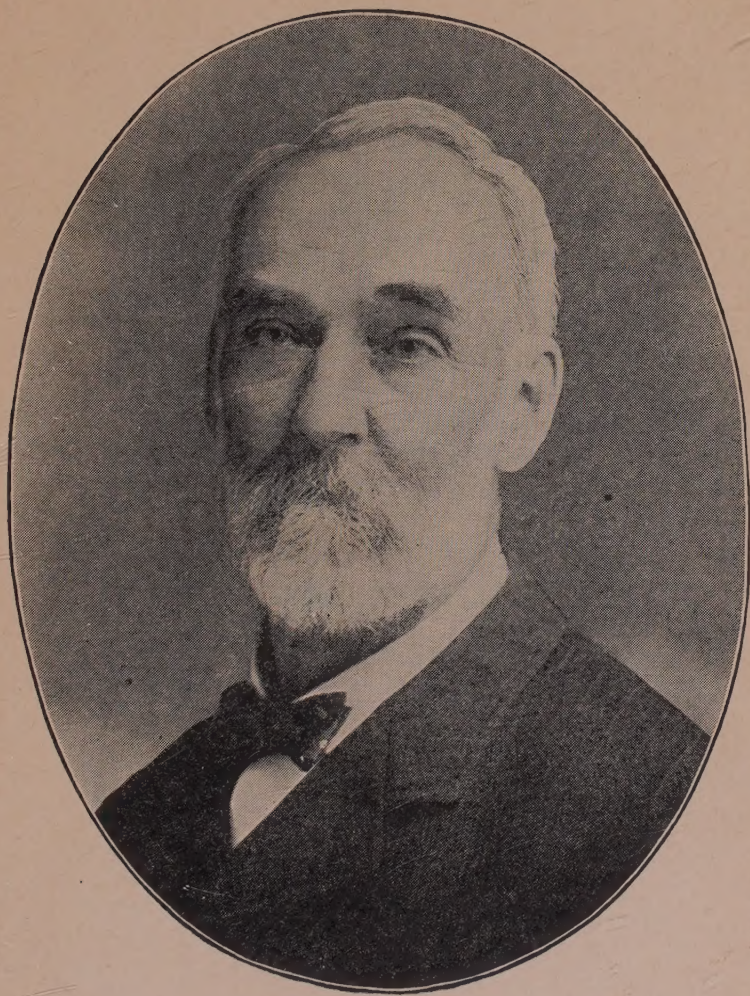
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“Woulds’t thou enjoy a long life, a healthy body, a vigorous mind, and be acquainted also with the wonderful works of God; labor in the first place to bring thy appetite to reason.”—Benjamin Franklin.

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T. B. Ferry.

This little book is most earnestly

Dedicated

to all the people of America

Introductory

WHAT I KNOW ABOUT THE MATTER.

My mother had eleven children. Only three lived to mature age. Of course, I am one of them. But you can see my start in life was not a strong one. I was a sickly child like the rest. In college I broke down from too much confinement and study, stayed out a year, tried it again, but had to give up. Doctor told me I must get outdoors to work. Did so and soon got better. We moved on to our farm where we now reside 38 years ago. Then I got along fairly well by hiring help to do all the heaviest work, as soon as we could make enough to pay them. I learned to do the studying, the directing, laid out the work, kept everything in order and moving, and did myself mostly easy jobs, like riding on a spring seat. Thus in due time we succeeded quite well and the out-of-door employment gave me moderately good health. But after a few years we began to make so much on our little farm that public attention was attracted and I was urged to write for leading agricultural papers. And about this time Farmers' Institutes began in Ohio and other States and I was asked to help at them. I did not want to do this work, as it would take me from home, and, of course, my farming would suffer as a result. But the demand was strong and I soon found myself away from home all winter long, speaking two or three times a day, breathing bad air in halls, living irregularly, often traveling nights, and putting in every spare hour writing articles for the papers. Then on top of this was the constant worry over trying to keep the farm in as good order and producing as well as when I could give my full time to it. I did so want to keep

my practice up to my preaching. At home I worked when the weather was fine and rushed in to write when it rained, as well as at night. This was not so much to make money as that all this business had come to me and I did not like to give any of it up. One hardly needs to tell that the result, some ten years ago, was

A COMPLETE BREAKDOWN.

I had so much ambition and push that I kept driving on after nature had given several danger signals. In fact, I did not consider them at all; hadn't time. The end came when I was in New York. The doctor said I was in a critical condition. But I surprised him by getting up long before he expected, from sheer will power, and then started home by easy stages. Kept up until I got there, then I was sick indeed. Would gain some at times, then be worse again, until life became a burden that I was really anxious to lay down. Our good old doctor seemed powerless to help me much. I remember writing two articles in those dark days when I was flat on my back, so hard was it for me to give up. My pen had to almost run itself. I hardly knew what I was writing. At last I urged our doctor to tell me frankly if I could ever again be as well as I had been before. He replied that he did not think I could; that my kidneys were worn out, liver was in bad condition, I had serious prostatic and bladder troubles, rheumatism, piles, etc. He said that he could patch me up a little from time to time, perhaps, but there was no chance for a cure; that one should bear these things philosophically, as they came to all and there was no help for it. Now, do you know he could not have said anything that would have done me more real good? Up to that time I had faith in a first-class physician. I thought he could cure one when he was sick. His words knocked out all of this feeling, and I paid him up, really in pretty good spirits. Why? Well, it thoroughly aroused what little will power I had left. I said to myself, "I don't know what I will do, but I do know that I will not die. I am going to get well in some way."

WHERE THERE IS A WILL THERE IS A WAY.

I began to study this matter of health and proper living for all I was worth. Of course, I was years slowly working my way up, making many mistakes, but gradually gaining. It was with much pleasure that I met our doctor one day years after on the street. I was stepping off like a boy, just as I felt. The doctor looked so completely beaten that really I felt sorry for him. And he said: "Terry, I don't see how in the world I could have been so mistaken in your case." He was not mistaken. If I had gone on living in the old and common way it would have turned out just as he said. Probably 99 men out of 100 would have died just as he laid out for them to do. I was obstinate. I have never recognized any such word as "fail." Today my kidneys and liver are as good as any man could ask for. Every organ is in ideal order. I have the strong, vigorous, quick pulse of a young man. Have not had a trace of piles, rheumatism or constipation for several years. In fact, I am sound and well in every way. Breathing, eating, sleeping, working; all are genuine pleasures. I really do not think I ever enjoyed as perfect health before in all my life as I have during the past five years. And, wonder of wonders,

I AM STILL GAINING.

Right living is naturally slow in bringing results, but they are certain and the best of health will come in due time. Do you wonder that I am enthusiastic? Haven't I earned the right to be? Now, you will find no idle theories, or fads, in the following pages. I shall tell you what I have done and know. I am going to lead you to gradually improve your ways of living and gain splendid health. Then, barring accident, there is no reason why you may not live long, 20 or 30 years longer than people generally do, and enjoy life fully all the time. Few indeed know what fine health really is. We have slowly drifted away from simple, proper, natural ways of living. As a result, we have diseases and ills almost without number, and our lives

are much shortened. The truth along these lines has not been realized by many. It has been practically hidden by much that was wrong. But now let us get down to business.

If you are ailing, as most people are, you can cure yourself, same as I have myself, and as thousands of others have done. You can become so well as not to know what it is to have an ache, or pain, or bad feeling. I will tell you just how to do it. If you are well now, or when you get well, you can keep so by continuing the same simple, natural, healthful way of living. I have long been urged to write a book of this kind, but have held off until years of personal success and study gives me the right to speak quite positively. It is my aim to make these pages entirely reliable, a safe guide for busy people who have not the time to work for years sifting truth from a mass of error.

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How to Keep Well and Live Long

CHAPTER I.

LIFE ESSENTIALS.—AIR, HEATING, VENTILATING, BREATHING.

If I were to ask you what you live on doubtless nearly all of you would say at once, "Why, on the food we eat," without a thought of anything further. This partly mistaken idea has made no end of trouble in the world. And, even if the above answer fully covered this matter, people haven't given anything like proper attention to food and eating. Now, the truth is, you couldn't live but a few minutes without air, say a week without water and about the same time without sleep, while you can survive a month or more without any food whatever. Folks have gone without food for several weeks, time and again. So if we are going to study over the life essentials, will not the proper order be the one given above: Air, water, sleep, food? There is not much difference in the time you could go without water to drink and without sleep. So it is immaterial which of these is put first.

Now, when you have all these life essentials, and the health essentials, in following chapters, quite well attended to you can gradually get well and stay so. But please do not undertake to do everything recommended all at once. You would get discouraged and then sudden, radical changes, even for the better, are not usually advisable. It is something like this: Suppose you start out to accumulate \$1,000 in the savings bank. You put in a little this week, perhaps some next, and so on. You may be years getting the full amount.

But it is the practical way of doing, and you would not think of giving up because you could not deposit the full amount at once. In the same slow, little-by-little, but persistent way you should improve your living conditions, never stopping until you have everything just right.

HOW AIR IS MADE IMPURE.

We need pure air to breathe for best results, and we need to take into our lungs a liberal amount of it. Most people do not breathe enough and few have air the 24 hours through which is fresh and pure. Air is made impure in our dwellings and places of business, churches, halls, etc., in three general ways: First, by impurities thrown off in the breath; second, by dust; third, by being unnaturally dry when artificial heat is used. Let us take these up in order. The main impurity thrown off in the breath is carbonic acid gas. This is a deadly poison, you know; at least a person cannot live in it. You lower a lantern into a well to see that gas hasn't accumulated there, before you go down to do any cleaning. Being heavier than air it is inclined to settle into old wells, disused mines, etc. Now, the air you draw into your lungs when outdoors is about one-fifth oxygen. Without any of this oxygen the lantern cannot burn in the well, nor could you live. While the air you breathe is in the lungs the oxygen in it is partly extracted for the use of your body, to keep up the fire of life. Its place is taken by carbonic acid gas, which your body is constantly forming. So when the breath comes out of your body it is not nearly as well supplied with oxygen, is not nearly as pure, as it was when it went in.

SIMPLE EXPERIMENTS WITH IMPURE AIR.

Exhale your breath gently onto the holes in the base of a kerosene lamp and you will see the flame die down at once. Stop breathing on it and the flame will come right up again. Now the flame of life is kept up in just the same way, by oxygen. And it goes down precisely the same, from lack of oxygen. When

I came home one winter my son said to me :“Father, that oil heater in the cellar is of no use any more. I have cleaned it, put in a wick and done all I can, but it will not burn long. It dies down in a little while.” It was used in barn cellar to keep potatoes from freezing when temperature got dangerously low. I looked around a little. The walls of the cellar are made of glazed hollow bricks. They and the mortar between are practically air-tight. The floor above is 2-inch matched lumber and very tight. There is one door and one window, both almost air-tight. I said to son: “Open the door in the stable an inch or two and the stove will burn all right. It dies down for lack of fresh air.” You see that great blaze soon used up about all the oxygen in the tight cellar. As this element in the air gradually failed the flame died down.

THE FLAME OF LIFE WILL DIE DOWN IN YOUR BODY,

And that of your wife and children, in precisely the same way, if you shut yourselves up in tight rooms without some proper arrangements for fresh air to get in. You see, every breath as it leaves your body is diffused gradually through the air about you. It rises at first, because of its warmth, but as soon as cooled to the temperature of the room it settles slowly again. Starting with the air pure in a close room, the breath of a single person will make it quite perceptibly impure in an hour, and every hour it is growing worse. If there are several in the room it will get bad faster. One or more lamps burning will make matters much worse. They use up oxygen very fast, so does gas when burning. Of all things, beware of using an oil heater in a room where human beings are. There is no getting around these simple facts. With the lowered vitality from breathing impure air serious diseases may take hold of us at any time. Hundreds of thousands die every year from entirely preventable lung diseases, such as consumption, pneumonia, etc. It is all your own fault. We so live as to bring on these troubles. We may quite properly call them punishments. When such ills come it is because we have violated some of nature's plain laws.

This is as certain as that when one puts his hand in the fire he will get burned. Arrange in some way to stop breathing impure air over and over, if you want to keep well and live long.

A SIMPLE WAY OF VENTILATING.

In the home in daytime, in winter, until you can do better, open doors and windows at least three times every day, as regularly as you eat, and let air blow through some minutes. It will not cool the house much. As the walls, ceiling, furniture, etc., are all warm, the fresh air will soon seem warm. A good time to do this is when you are on your feet after a meal doing up the dishes. So much for the living rooms. But to have the air in bed rooms pure is still more important, as we will show you in other chapters. So I most earnestly advise you when you are ready to jump into bed at night, to open one or more windows, top and bottom, more or less, according to the weather, then cover up warmly in bed. Thus you can breathe in fresh air and increased life and vitality all night long. You can get up feeling refreshed and ready for work, if your other habits are as good. And this costs you nothing. Be sure and lower windows partly from the top. Raising the bottom sash alone does not answer as well. With window open top and bottom there is more circulation, more passing out of warmer air and your breaths at the top, and more coming in of cooler fresh air below. Let me beg of you to fix your bed room windows so they will open easily top and bottom, summer and winter. In very cold weather you will need to open them but little; in mild weather open them all you can. Take off all curtains. Roll the shades way up. Life is more than looks. Do not be afraid that the cold will hurt you, or a draught either. Cold air contains a little more of the life-giving oxygen per cubic foot than does warm air. Any boy who goes to school can tell you that. Did it never occur to you that all such matters could be made of practical use to us? Yes, cold air will put a little more life into you, and at no cost. As to draughts, I enjoy feeling some wind blowing over my face, because then I know I am

GETTING AIR AS FRESH AS GOD MADE IT.

There is grave danger in still, stagnant air in the bed room. Let me tell you right now that wife and I sleep in winter with two bed room windows open just as is described above. We have done so for years. And still our home is abundantly supplied in every room with pure warm air. We can sleep in a warm room and have the air practically as pure as it is outdoors. But, as I told you, it is a little better to have it cold, and the writer believes in doing his best. The rest of the house is kept warm all night so we have a warm room to dress in, and go to bed in also, as the bed room windows are shut when we get up and the door into the hall is opened. If the wind blows into the bed room so as to make it unpleasant we close outside blinds more or less. Or one might have a screen so fixed as to keep the wind from striking his face. You know that consumption is often cured now, if not too far along. And what is the first thing done along this line, invariably? Why, fix it so the patient practically sleeps outdoors in fresh air, cold in winter, even to below zero. If you want to keep free from all lung diseases, and well generally, this same fresh air day and night that helps to cure, will help to prevent. Is it not worth while to arrange to have it? Of course it will cost a little, and be some trouble, but isn't it the same with sickness? And you surely do not want any member of your family to pass away from an easily preventable disease. Do you fear that the cold air, or the draught of air will give you a cold? Some still think that way, but it is utterly wrong. If you live properly you need never have the slightest cold. One of the preventives of colds and all other ills is fresh air to breathe at all times. See chapter on this subject.

A BETTER, AUTOMATIC WAY TO VENTILATE HOME.

The plan given above for ventilating the home in winter is the simplest and cheapest one that we can tell you of. It wastes a little heat, but not much. There can be no ventilation, no bringing in of fresh air, without some loss of heat. But open-

ing doors three times or more per day to change the air requires regular attention. Such never ending chores get to be burdensome after a time and are often neglected. So I will give you an automatic plan which is a little better. It will cost a few dollars, but will give excellent results in a small house where the family is not large. Get a good sized, round heating stove for the living room. Have a tinner case it around with heavy galvanized iron, except on front where doors are, something as a furnace is cased. Have casing 3 or 4 inches from stove all the way from top to bottom and passing down tight to floor. It should fit up snugly to the stove each side of doors. Let this casing extend above the stove a few inches and then be drawn in to a 10-inch round pipe. On this put a 10-inch elbow of the same galvanized iron, with outer end of elbow made 12 inches square instead of round, and extending out one foot. Have little cleats riveted in this 12-inch space on each side. Put lower pair of cleats 3 inches up from bottom; the next ones 6 inches; next pair 9 inches. Then have four galvanized iron pans made, 12 inches square and 1 inch deep. They should be fitted so you can easily slip one in on bottom of 12-inch space in opening of elbow, then the other three pans on the three pair of cleats above. Keep these pans filled with water. There will be 2 inches of space between pans for warm air to come out through. This pan arrangement is a simple form of our humidifiers, which will be explained later on. Now, cut an 8-inch round hole through the floor under the stove. Of course it will be inside the casing. Put a galvanized elbow up into this hole from below, and then 8-inch pipe of the same material, running horizontally under the floor to cellar wall and out through it. It is best to have this come out through west or north wall. If there is no cellar it can be put in just the same.

BUT TAKE AIR FROM OUTDOORS.

Do not take it from under the house. Now, suppose you have it all done and start a fire in the stove. As soon as air between the stove and casing becomes warm it will rise and pass

out into the room between the pans of water. The necessity for this water will be explained in another place. As the warm air passes out from between the stove and casing more air will be drawn in from outdoors through the horizontal pipe. Thus fresh air will be steadily drawn in and sent into the room warm as long as there is any fire in the stove. You need pay no attention to the arrangement more than you would to a stove alone, except to fill pans with water when it is needed. Unless the room is exceptionally tight air will work out around doors and windows. The air coming in warm will compel it to. Some air will go up the chimney through the draught of the stove. Thus there will be a constant coming in and going out of air. This is ventilation. If casing, pipes and pans are made of good, heavy galvanized iron they will last a long time. The cost need not be much. Any ingenious tinner can fix the arrangement when you make him understand what is wanted. When two or three rooms opening together are used, warmed by one very large stove, it will be well to make inlet pipe about 10 inches and elbow above stove 12 inches. The outlet for warm air should always be larger than the inlet for cold air.

A STILL BETTER VENTILATING PLAN.

A plan follows which will be a little better than the one given above, and which will give you the pleasure of an open fire. Get an old-fashioned Franklin open grate stove. They are still made and are the next thing to a grate. And they can be made more economical of fuel than are any of the common grates. A pipe connects with the chimney the same as on any other stove. Thus you can practically have a grate fire, placing the Franklin where you please in the room and connecting it by pipe with the chimney, as you use it for a stove. Case this Franklin on back, sides and top, and fix water pans, etc., same as described for round stove. It will not be quite as easy to case as a round stove is, but it can be done. Then you will get fresh warm air brought in constantly and air will be going out through and over the open fire and up chimney as steadily. This is better

than to depend on its working out around doors and windows because it is certain, uniform, and takes out the coldest air in the room, and the least pure, that which is near the floor. The other way, some of the purest air, just brought in, is likely to work out at top of doors and windows. And then an open fire is exceedingly cheerful, as well as a good ventilator. Get one just as soon as you can possibly afford it. You will enjoy it. It is so pleasant to sit around. There is something very agreeable about the radiated heat directly and seeing the fire. But the vital point is that it ensures better ventilation. We have a grate, which is practically an open Franklin stove set in a fire-place and cased to bring in fresh air warmed, precisely as I am advising you to do, only it is not out in the room. But it is a more costly plan than the one given you. Now, next, if you will put a Rochester radiator in perpendicular pipe above your Franklin, where draught is strong enough, you can have an open fire with great economy of fuel. The same radiator above a closed heating stove will also pay well. And in either case the radiator may be placed in the room above, pipe passing up through ceiling, and then into chimney. Radiators are made for soft coal and also for hard coal and wood.

A PERFECT SYSTEM FOR WARMING AND VENTILATING.

But now we will suppose you wish to keep your whole house warm in winter, some 8 or 10 rooms, and you can spare the money to put in a complete system. Then do as we have done, get a good warm-air furnace and put it in right. It is true that they may be a nuisance if not put in properly, but I will tell you just how to do it. Our home is like summer, day and night, and more than that. Select the most ideal day in June, when it is just warm enough, when the dust has lately been laid by a shower, but there is no excess of humidity, when you say to people you meet: "Isn't this a perfect day?" and we will show you precisely an ideal condition in our home every day all winter, and every hour of the day and night. A rather strong claim, but come and

see, as hundreds have from many different States. It beats nature all out, for she furnishes but few really perfect days. It took me six years to get every detail just right. A number of devices had to be invented on purpose. But they are all free to you, although I could have made a fortune by patenting some of them. Now, briefly, put in a large furnace, about 50 per cent. larger than dealers usually advise. Arrange to move a large volume of air at a low temperature, rather than less over-heated air. The warm air we bring in has about summer temperature. This arrangement is better for your health every time, it makes more ideal warming and the furnace will last much longer. With the large furnace have large warm air pipes, large registers and a large inlet; all these things in proportion. Warm air pipes should have at least 2 inches rise to the running foot and more is better. This is so air can rise quickly into the room before it gets cooled.

A TALL FURNACE IS MOST ECONOMICAL.

Ours is 83 inches high. Our cellar was 8 feet deep, but we dug furnace room down to 9 feet, in order to get in a tall furnace, with more radiating surface, and to get ample rise to all warm air pipes. The furnace should be placed a little to the northwest of centre of house. Pipes to the north or west should be the shortest or largest. Warm air does not move as readily in these pipes in the directions from which the strong, cold winds come. Never carry warm air one foot farther than is necessary to get it into a room. Never think of carrying it over to the other side because that is the cold one. Put every register at the nearest point to the furnace that it can be. Once in the room warm air will spread all over quickly. You will always lose more heat to carry it across in pipe beneath room. Build a little brick-walled well, about 2 feet deep, to set furnace on. Connect this well, open, of course on one side, by tunnel under cellar floor, with cold air room. This is the very best way to get air to furnace. Put flag stones over tunnel and cement them tightly. Build tun-

nel of bricks and cement mortar. Wet the bricks before they are laid. Our tunnel is 20x40 inches. Make all joints dust tight. A larger furnace will need a larger tunnel. Our warm air pipes are from 11 to 14 inches in diameter, and every one just right, as proven by use. Do not attempt to carry warm air upstairs in small pipes in a partition. The pipe coming up to my study is 9x15 inches, in a corner of the room below, behind a door out of the way. You would hardly notice it, or another one in another corner. They are papered over nicely.

THE COLD AIR ROOM.

Make a little cold air room on west or north side of the cellar. About 6x8 feet will do nicely, but the size is not particular. I built ours by putting up a partition of 2x4's, ceiling each side tightly with matched flooring. Then have a door into the cellar, and an outside window to let in light, and an opening for fresh air to come in. This air opening should be fixed so it can be opened more or less. I use a board door, hinged at top, and fixed so it can be fastened instantly at any point one may have it opened to. Next have a large return cold air register in ceiling of cold air room, or better, two registers, as we have. It divides the draught of air above and enables one to shut up part of the house and still have circulation of air go on. Our cold air registers are but two feet apart in cold air room, but are in different rooms above and some 30 feet apart to one walking around. This was done by making cold air room under a partition above. It is the best plan. I cannot take space in this book to go into every little detail, and to argue points, but I will give you the important particulars and any ingenious person can work them out to fit their own conditions. You will do well to not allow any furnace man to tell you this or that is not necessary, or not the best way. I have absolutely no ax to grind, you know, and I know that I am correct on every point mentioned; am telling you the very best,

I SPENT YEARS WORKING IT ALL OUT.

You can have the advantage of this. I decided on size of furnace, location, size of every pipe and register and marked on a plan of house where they should go. Then I went to the best furnace man and asked him what he would put the system in for precisely according to my plans. He said he could tell me where I could save money and do better. But I insisted that it must be done exactly as I said, and it was. Fix a board door to shut up under each one of the cold air registers in cold air room. These should be shut when sweeping is being done, to keep dust from being carried all over the house. And in mild weather you can shut them and take all air for furnace from outdoors directly. I have these doors all hinged on back side and hung with weights and pulleys. There is one point of some economical importance connected with this tunnel under ground to take air to furnace. The temperature of the ground through which it passes will be perhaps about 50 degrees. The cold air coming in is warmed some on its way through the tunnel and at no cost for fuel. So never mind if you have to build quite a long tunnel. When you get everything fixed as described you can be complete master of the situation. You can take all air from outside, in mild weather, all from inside when you are going away through the day, or in extreme weather, or anywhere along between, as may be best. Leaving the cold air registers both wide open, you can also open outside inlet more or less, as you please. The air from outside being colder, will always come in and pass down to tunnel and furnace first, the rest that furnace may need being drawn from floors of rooms above. Under no circumstances does a particle of air ever go up into rooms through the cold air registers we have.

THE VERY BEST WAY OF TAKING AIR OUT OF HOUSE.

You have been told just how to get warm air into your home. Now, arrangements should be made for taking out an amount about equal to what is let into cold air room from outside. Then

you can have perfect circulation and perfect warming; every part of every room equally warm. The warm air as it comes in rises. Hence in the upper part of room is the purest air. So arrange for air to pass out of room at or near the floor. This is economical, too, because it is the coldest air in the room. There is an objection, you see, to airing a warm room in winter by letting window down from the top. It will let in fresh air, but lets out much heat also. The best possible all-around good way to get air out of the home is by means of an open fire. We keep a steady fire in grate from time it gets freezing cold in the fall, until it stops freezing in the spring. We burn hard coal, stove size, in a Jackson ventilating grate. It is essentially a small furnace opened on one side, so one can see the fire. Nothing better is made, or can be desired. Our fire never goes out, or gets low. I fixed a shield in front to control the draught so the fire is held uniform and perfect for 12 hours without touching. We never fix the grate fire, or furnace either, but twice in 24 hours. When we get up in the morning the fire in the grate is practically as bright as when we went to bed at night. You see, we let in just air enough about shield to hold fire even, so it does not burn too hard at first and then die down. I hardly need to tell you how much we enjoy this beautiful steady grate fire. Having the idea, you can fix a shield like ours. It is half the grate for us, and I only paid 35 cents for the sheet-iron to make it, and then fitted it myself. You see we control the draught about as one does in a good stove.

OTHER WAYS OF TAKING AIR OUT.

Now, the next best way of getting air out of the house is through an open-grate Franklin stove. But it can be taken out fairly well without either of these plans. Have a chimney flue, say 8x8 inches for one register, 8x12 for two, coming down to floor of room. Then put a 6x8 register into this right at the floor. Cut out base board and put it right at bottom. This plan will work best in chimney in centre of house, not in outside wall;

so will grate and furnace. The central chimney is warmer and draught better. As furnace sends in warm air the pressure, and the warmth, will cause air to rise up flue, although not as fast as through an open fire. It is well to have outlets in different parts of the house. Our grate is centrally located so it ventilates nicely three living rooms which open together with large double doors. A register at floor into chimney flue would do nicely in same place, but not as well as grate. Then we make use of this plan in the kitchen, so this room and dining room can be ventilated independently when door into sitting room is shut. There will be a chance, you see, for the regular inflow and outgo of air. You cannot warm a house completely and perfectly, using a furnace, without proper attention to the letting of surplus air out. Then I have a 6x8 register into chimney flue at the floor in my study upstairs, to use when door is shut. Having this, I can have air coming in and going out of this room by itself, a perfect circulation. These small registers cost but little, about \$1. Anyone can cut a hole in chimney, mix a little mortar and put one in. In my study the register goes into the same flue that the furnace uses. I was not sure how this would work, but it is all right. However, the chimney is high and draught very strong. But, as a rule, all doors in the house are left open and air circulates all over, upstairs and down, and passes up chimney from below after it has returned there.

PERFECT HEALTH CONDITIONS IN MY STUDY.

And now we will consider the matter of dust in the air of our homes. I believe this dust is about as much a menace to health as are the impurities from our breath. You can do away with it largely if you will; we have. For one thing we have got through with dust-laden ingrain carpets. Body Brussels are better, but a wooden floor is better yet, or one covered with linoleum, and having rugs placed about where desired. A common floor painted, with pieces of carpet laid down here and there, which can easily be taken out and shook, is far safer than a floor covered

with ingrain or rag carpet. If you want something nicer, more stylish, and still safe, follow my example. I have in my study the most perfect conditions possible to get, and still have everything very comfortable. I believe in every one of these matters that fill this book. They are things we have worked out for the betterment of our own health conditions. I took up the old dusty ingrain carpet for good, years ago. Then the floor was planed off smooth and inlaid linoleum was put down. It is a quiet, pretty pattern that one can hardly tire of. The colors go clear through. It weighs 8 pounds to the square yard, so it is good for a lifetime. It is softer and nicer to walk on than is a hardwood floor, and it will wear longer. I did no nailing for a year. By that time it was seasoned and seams in the middle were nailed down with small headed brads, so one can hardly see them. There are no nails around outside. There will be no more shrinking and swelling to speak of. It may change very slightly at outsides from moisture and dryness, but the seams will never change. Don't I enjoy it? No more taking up or putting down of carpet, if I live to be 100. No more raising of dust when I move around. The linoleum can be swept, or wiped up. On this we have three rugs averaging about 3x6 feet. They can be taken out and dusted often. Then we have shades on windows; no lace curtains, no plush furniture; books and papers under glass; as little as possible to catch dust. We also have linoleum in kitchen and dining room, bath room, pantry and cook room.

HOW WE GET RID OF DUST IN OUR HOME.

But with all the care mentioned above there will still be considerable dust accumulating in the house. After much study I put into use, five years ago, a plan intended to take most of it up the chimney automatically. I like to make things do themselves, don't you? Below you will find the outline of this system: All furnace warm air registers are close to inside walls and opposite outside ones. The outlets for impure air at the floor, grate and registers in flues, are also in inside walls. This is the

way it works: Warm air coming in by warm inside wall rises, gradually works across room, reaches cooler outside wall, and slowly falls towards the floor. Then grate fire, or draught of open registers in chimney flue, on opposite side of room, draws the colder air along floor to the chimney. Any loose floating particles of dust are taken along in this air and go up chimney mostly. There is a constant circulation of air going on in this way. You couldn't feel it, nor smell the dust. It does not rise high enough to reach one's face. But as you value its life do not put a baby on the floor in winter. It is the worst air in the room for the little one to breathe. Now, to prove to visiting friends how much dust goes up chimney, I have often shut up grate (we have a damper above it so we can shut off draught), and registers at floor into chimney, and outside inlet in cold air room, and let air revolve in house. Standing in cold air room, under return cold air registers, they could at once smell the dust in air coming down to furnace. As we ordinarily have things, steadily, day and night,

THIS DUST MOSTLY GOES UP CHIMNEY.

The first winter after the plan was perfected our living rooms below were not swept thoroughly for eight months. Of course a carpet sweeper was used occasionally in centre of rooms, but there was no moving of furniture and broom sweeping around edges of rooms. Years before, with stoves in the house, this was done about once in two weeks all winter. And a dusty and unhealthful job it was. About the first of June, when the fires were out, I helped wife take furniture out on porches and open all windows, one windy day, and sweep. We went across the rooms once. Then I said, "Now let's go back and try again." Wife replied, "What is the use, we are not getting any dust?" This is the exact truth. And Mrs. T. is exceedingly particular, too. Few housekeepers pride themselves more on keeping house free from dust than she does. I know this will be hard for you to believe, but it can be done, on Brussels carpets, or linoleum, or wooden floors, and it is worth working

for. Now, do not misunderstand me. We do not get all the dust out up chimney, but I think I am safe in saying we have done away with seven-eighths of it. And you can hardly realize how pleased I am. These conditions are so much more healthful. Notice that this is not one word of it theory. We have done it for five years, by taking advantage of simple scientific facts. You can do about the same, if you get everything right. But do not put inlets and outlets different from what I have told you, or you may fail. The open fire is necessary for best results. By the way, our furnace is put in so perfectly that no particle of dust ever can come into the house from it. And we built a tight ash pit under the grate in cellar, of bricks and mortar, so the ashes can drop down into it when we clean grate, and I put on the blower to keep any from coming into room. There is no taking up of ashes in sitting room to make dust that way. The pit is large enough to hold ashes for all winter. Then this can be taken out from the cellar.

HOW TO VENTILATE WITH STEAM AND HOT WATER HEATING.

Now let me tell you something about these two systems of heating. Some of you have one or the other kind. Others may be thinking of getting one of them. As ordinarily put in, neither system does any ventilating whatever. One breathes the same air over and over, except as it is slightly changed by what gets in and out about doors and windows. Anyone who thinks must see this is a dangerous condition. But one can fix so as to ventilate with steam or hot water heating. Have an open fire, either grate or open Franklin stove. With any open fire air will be steadily taken out of house and up chimney. Other air must be drawn in from outdoors to take its place. But having it come in cold about doors and windows is not pleasant when one is sitting near them. So it will be better if you have a grate like ours, which constantly brings in a stream of fresh air, warmed, whenever there is any fire in it. There is another way you can bring in fresh air warmed, and do it practically. Case one or

more large radiators in cellar, or in room above, and pipe cold air from outside into lower part of casing, and fix for warm air to pass out above into room. Arrange this about as described for casing a stove. But the air coming out of this, warmed, will lack proper humidity. So to make a perfect job, put shallow pans for water in elbow of casing above radiator, same as described for a cased stove. This plan has been put into successful operation. There is always a way to get what is needed. But for any ordinary sized house the furnace heating can be made to give perfect results, ventilation and all, and it is cheaper and more simple. But as you value the lives of your family do not put in a furnace in the way it is commonly done, taking in no fresh air from outdoors, but revolving the same air over and over in the house. It will certainly help to bring on trouble some time. The silly claim made by some dealers, that passing the air back through furnace makes it pure and fresh again, is absolutely false, although probably they do not know it. Follow any system of warming you please, but let me beg of you to fix it so as to get pure air in your homes. •

WHEN COLD AIR IS WARMED IT NEEDS WATER.

Now we come to the matter of making the air in artificially warmed homes properly moist. Here is the scientific principle: Warm air naturally holds more moisture in suspension than does cold air. Hence the air outdoors when it is cold in winter has not nearly as much water in it as it has during a nice day in summer. Now, with furnace, or cased stove, or cased radiator, bringing in fresh air, you take winter air and warm it to summer temperature. At once it needs water to take up, as it is in an unnatural condition of dryness brought about by your warming it. So it will proceed at once to get this moisture which it needs. It will take it out of furniture, which will get so dry as to slowly come to pieces. It will take it from doors, the panels pulling out and great cracks being made around doors. It will take it from the piano so it will soon be out of tune. But

all this is not serious, only annoying, as it is only a money loss. But the dry air will take water out of your body, which is about three-fourths water. It will take it out of your throat and lungs. They will become irritable. Sickness and death may easily be helped along in this way. I believe the three ways in which air is made impure in our homes are about equally important, as a rule. Remember that they are, impurities thrown off in breath, dust and over dryness. So as soon as my attention was called to the dryness of air in our furnace-warmed house I went right to work to remedy this cause of trouble in a simple way. I had thought of the dust in air and the carbonic acid gas, and had fixed beforehand so these impurities were reduced to about a minimum. But the matter of over dryness had not come to me clearly. You see there was a water box in furnace. When I had filled that with water I supposed all would be well in that line.

HOW I CAME TO MAKE HUMIDIFIERS.

When we first started furnace fire we considered that the air would be pure, so we thought we would try sleeping in bed rooms where this complete warming and ventilation was going on without opening the windows, for a time. To my great surprise I wasn't at all comfortable. Wife and daughter soon said they could not stand it at night. In day time when they were stirring about it didn't seem so bad. But at night they could not sleep. We had no idea why. So they shut their doors and opened windows. To say that I was greatly disappointed would be putting it mildly. Theoretically I thought the air was all right and I couldn't desert the system I had worked so hard and long over. So I continued to try to sleep in this furnace warmed air. There was air right from outdoors coming in warmed. The temperature was right, there was little dust and water in the box. It was too much for me. But one morning before light I was awakened by a noise about like the crack of a small pistol. I could not locate where it was, and got up and lit a lamp and began to look around. I soon found that the paint on one side

of a door panel had let go and the wood was drawn back more than a quarter of an inch. It was a fresh crack and instantly the true condition flashed through my mind. I said to myself, "Terry, you great big blockhead, the air in this house is too unnaturally dry. That is what the trouble is. That water box on furnace is not furnishing enough moisture for the air." As soon as I thought he was up, I telephoned to a friend who had a furnace and asked him about this matter. He said their doors upstairs were badly out of fix, wouldn't shut tightly, panels shrunk, etc. And all over the house the furniture was coming to pieces. "But," he said, "this is a condition that cannot be helped if one uses a furnace." Well, I didn't contradict him out loud. But knowing the enemy at last I had no fears about being able to conquer it.



A SIDE WALL HUMIDIFIER.

Right after breakfast I went to town and got four pans made of galvanized iron, each 12x14 inches and 1 inch deep. Then I came home and made a wooden frame and set pans in it as shown in picture, the second humidifier from the left. The

register in my room is a side wall one. This frame stands on floor in front of register, which is up from floor a little, right behind the pans. The warm air coming in must pass over the water. There is a sheet of iron at top so air must go over upper pan, cannot rise up. The humidifier being open on sides seems to make no difference. The air comes in with force enough so it passes out at the front, practically. But four pans are shown in picture. Five would be better. Two inches in the clear between them is sufficient. I was not certain about this at first. The picture is from a photo of the four humidifiers we are using.

Well, I got this first one done and pans filled with water before I went to bed. Afterwards it was nicely painted. That was the end of trouble in my room. The next humidifier made was for the parlor. This is the one at the left in picture. I don't suppose wife would have liked the idea, only she was anxious about the piano, and so was I. So I got four more pans made, wide as the register, and then built the wooden frame in which they were placed. The curved side is galvanized iron, which comes clear out to the front, over upper pan. I nailed this iron to the wooden sides. The back part of frame stands over register in floor. The pans stand in front of it, about as they do in front of side wall register. The curved back throws warm air out over pans nicely. But five pans would be better than four. As this humidifier stands in an out-of-the-way corner this style answers well. And, as I made and painted it myself, all except the pans, the cost was very small.

AN IDEAL HUMIDIFIER FOR FLOOR REGISTER.

In two other rooms the registers were at points where there wasn't any space at all to spare. To be practical the humidifier must stand directly over the register and take up no more room. The first ones made were simple; these other ones seemed impossible at first. But there is always a way, once you find out just what you want and go to work. In due time I drew out plans of the third one from the left, took them to a good tinner and

brought the humidifier home and found it perfect, without making a single change. It is all made of heavy galvanized iron, and painted on outside with enamel paint, so it looks nice. There are seven pans in this one; lower one 3 inches wide, back and forth; next one $4\frac{1}{2}$ inches; the third 6 inches; fourth 7 inches; fifth 8 inches; sixth 9 inches; seventh 10 inches. Register opening and humidifier frame 12x15 inches. The frame just covers the opening in register, leaving some of register frame projecting. The front edges and top of humidifier are rolled, to stiffen them. Total height from floor, 28 inches. A piece of galvanized iron was put in from lower front edge to rear of first pan, so as to turn air into back part, not let it be stopped by bottom of pan. This lets it come through register with entire freedom. Then as air rises a little some of it hits the bottom of next pan, $4\frac{1}{8}$ inches wide, and is sent out over surface of lower pan, and so on to the top. At rear of upper pan you notice there is a 2-inch space for air to come up. The clear space between all pans is 2 inches. Pieces of iron are soldered or riveted onto insides of frame for pans to rest on. Care should be taken to have each pair level, and frame stand plumb, so the pans will hold water to their full capacity. The iron goes over top and across back of humidifier, of course. The other one shown is built in same proportion, but for a larger register.

BOTH THESE HUMIDIFIERS WORK PERFECTLY.

Not a fault can be found with them. The amount of water taken out of one by the warm air passing over pans for 24 hours is usually between 10 and 15 quarts, according to the coldness of weather. Now let me call your attention to a great point: This water is taken up by air in a natural way, cold. It is not boiled and turned into steam, or even warmed. Steam in the air is not natural and would settle on windows. You have noticed it when you were boiling away much water. Our windows are clear of moisture. The air when warmed passes over the water and takes up just what it needs, and takes it up cold.

It is a surprise to most visitors to find water in pans about cold enough for drinking. They cannot see how this is possible. The evaporation keeps it cool, of course. The total amount of water taken up by air in our home in 24 hours of cold weather is about 50 quarts. You can hardly believe all this, perhaps. But it is absolutely true. Think what the air would be without this water. Remember how trouble began when we first put the furnace in. Now no door panel ever stirs a particle, no furniture comes to pieces, no one's lungs can be injured. We are completely masters of the situation.

WATER PANS FOR GRATE.—MORE ABOUT HUMIDIFIERS.

We soon found that our strong grate fire needed water pans under mantel shelf so the heated air could be moistened. These pans also are made of galvanized iron. The edges are painted with aluminum paint. The edges of humidifier pans are fixed the same way wherever they show. There are two of these pans over grate, each 7x10 inches and $1\frac{3}{4}$ inches deep. The sides are a little flaring, making them slightly smaller at the bottom. This makes them look better. They are hung under mantel shelf, one each side, by small brass chains, in such a way as to look right, and so that heat coming up passes all around and over them. They need filling with us twice a day. With a little care they can be made to add to the appearance of grate, help about moistening the air and partially protect the shelf from the fire. I got the pans made and bought the chains and put them up myself. Strangers think this arrangement came with the grate, as it looks so much like a part of it. They ought to be furnished with every grate put up. Doubtless someone will make these and the humidifiers in due time and advertise them. But they cannot be patented, as I have given the idea to the people. Nothing to be compared with these humidifiers has ever been patented. They take up no more room than does the register. And on top of them is a fine place to set bread to rise, or to put anything you wish to keep warm. Properly made, they do not retard the com-

ing in of heat, they are rather ornamental than otherwise, and the water will evaporate about equally from all the pans. The humidifier with seven pans in should have a little piece coming up above the top, with a hole in it, so a screw can be put through to fasten it solidly to wall. Not only do these humidifiers moisten the air perfectly, but they are

FAR MORE PLEASANT TO SIT BEFORE THAN IS A REGISTER IN
THE FLOOR.

The warm air comes out all around one, instead of going directly up. They are something like a grate, but, of course there is no fire to look at. To fill all of the pans I use a 12-quart galvanized iron garden sprinkling can, with the nozzle cut off and a little elbow soldered on so as to turn the water down when one is pouring it in the pans. With this, having water in the house, I can fill all the pans in about eight minutes. The pans are not pulled out, but filled just as they stand. In mild weather one filling in two days may do; in cold weather once a day. Do not get pans made of tin, as it will not last. We have used our humidifiers five winters and they seem as good as ever. A visitor said to me lately: "If one has all the work he can do, do you think it worth while to spend the time filling those pans daily?" All depends on whether you want to do your part towards keeping family and self entirely well through a long life. I would no more think of neglecting this vital point than I would of eating bad food, or constantly drinking impure water. The comfort as one goes along is great from having really perfect air to breathe in the home. This visitor is doubtless no different from many other people; about as I was once. We rush and strive and have no time to notice how we are violating plain laws of health in our ways of living. Ills almost without number are the result, making life less pleasant, and then on the average it is shortened perhaps half or more.

The prize essay at Berlin International Congress which met to consider the tuberculosis question, gives a picture of an expensive humidifier, but it will not compare with ours for prac-

tical effectiveness. And it says: "The exceedingly dry atmosphere in winter in many city and country homes often gives rise to nasal catarrh, which everybody, especially those suffering from pulmonary diseases, or prone to them, should be anxious to avoid." There is one matter connected with the humidifiers that touches the pocketbook, aside from their first cost. It is a scientific fact, but you may not have thought of it. In air that is naturally humid

YOU CAN KEEP WARM WITH A LESS DEGREE OF HEAT.

The difference may be as much as 5 degrees. That is when our humidifiers are used a temperature of 67 degrees will seem as comfortable to you as one of 72 degrees when air has no chance to take its fill of moisture. You can see in a moment that this is correct, as on a hot day, after much rain, when air is filled with moisture, you feel the heat more than usual. You may feel warmer at 80 degrees than you would at 85 a few days later when air becomes more dry. So you can get a good interest on cost of humidifiers in fuel saved. And it will pay you well for time spent in filling, aside from the improvement in health conditions. And again it is worth far more than the cost to be able to prevent all injury to woodwork and furniture from excessive dryness. There is absolutely no shrinking of door panels in our home now and our piano has not been tuned for 15 months, and is still in perfect condition. But best of all, we humans are in perfect condition. You have now been told how to make air in your homes about as pure as it is out of doors, and in practical ways. You have been given the simplest plans, better ones, and the most ideally perfect ones. Choose according to your present means, but I earnestly hope you will not fail to work up to the best as fast as you can. The next step up is to see that you

BREATHE ENOUGH OF THIS PURE AIR.

Perhaps you haven't thought of it, but our civilized habits tend to prevent our doing this. But we can easily help matters

considerably in a number of ways, after we realize how important it is. The more pure air breathed up to the limit of our needs, the more life. The easiest thing you can possibly do along this line is to wear loose clothing which does not restrict the drawing of full, deep breaths in the least. It will be far better to give away an undershirt that is a little snug, to someone who is smaller, or to throw it away, than to wear it a day longer. Of all tight clothes perhaps a snug fitting undershirt is the worst for a man. The restraint is gentle, scarcely felt, but it is everlastingly steady, and in time the lungs cease to struggle against the unnatural restraining pressure. Then are you on a sure road to trouble. A tight vest, or coat, or anything snug about the waist works injury more or less in the same way. Of course we must wear clothes. But they may fit so as to look well, and still be loose enough to practically cause no injury. The writer simply will not wear any article of clothing that restricts his breathing. Especial care should be taken in this line with children, if you want them to grow up strong and hearty. Give the lungs full freedom from the neck to the lower part of abdomen. Women will get their reward if they will have all clothes entirely loose about waist and chest, supported from the shoulders, when they are working about home at least. It is simply giving nature a fair chance to do better by them. And do be particular and

DON'T WEAR ANY TIGHT CLOTHES AT NIGHT.

It is more important then than in the daytime. Night is the time when one takes in vitality and stores it up. It undoubtedly comes in by means of the air you breathe. Naturally one breathes more deeply and fully when asleep. Do nothing to shut out this breath of increased life. Never wear underclothes at night. If you must wear anything let it be a large, loose night shirt, or gown. But it will be a little better not to wear anything; have nothing that can draw up tight around you as you roll over. The writer has done this way for seven years. He will not go back to the old way. It is a small matter in the

line of improvement over a loose night shirt, but it is a little touch of nature which helps, and costs nothing. Quite a few people are now sleeping this way. It is not a fad, but an effort to be as natural as possible when they are asleep and can as well as not. I keep a large, long, warm night shirt hanging on bed post to slip on if I want to get up in the night.

POSITION WHEN SITTING, ETC.

Positions when in bed, and when at work, or sitting down, are all important. The idea is to give the lungs a full chance to take in all they need of the life giving air. Be careful not to cram them regularly, even a very little. Don't get discouraged. Gradually make these small changes for the better, and soon you will find right ways have become a habit and are as easy as any other ways. A good chair to sit in should not come up back of the shoulders and be curved so as to throw the shoulders forward in the least. And one should sit in it so the abdomen can move out with entire freedom as he draws full, deep breaths. Although we had plenty of chairs, I bought two new ones for my study on purpose to support my back, and still not keep shoulders from going back freely, as I sit at typewriter, or table. At the dining table I sit in a kitchen chair, because it is low in the back and does not throw shoulders forward. Our finer dining room chairs are high and back curved and do incline to push shoulders forward if one leans back. One story ought to be sawed off. Wife wouldn't hear to that, of course, so I get a sawed-off chair from the kitchen.

CLOSING WORDS ABOUT AIR.

The writer has tried hard during past ten years to make every improvement possible in his ways of living. Most of them have cost little trouble, only to get at it and do them until habit became fixed. But of all things he has undertaken this matter

of breathing more air has been the hardest. It is easy to say, do it, and most people sadly need to. But to really form the fixed habit hasn't come to me yet. I can do it by spells when not busy, and I think of it. But just as sure as I get deeply interested in reading, or writing, I breathe less, sometimes to the extent of almost holding my breath. I would pay \$1,000 quicker than a wink to be cured of this bad habit, and be able to breathe full, deep breaths right through without a thought under all circumstances. Please notice that I have in every possible way fixed so as to have air pure and perfect day and night. That will help if one does not breathe quite as much. And then every effort is made to make it easy for the lungs to do their full work. You will die in five minutes without any air. You can half live on impure air breathed by restricted lungs. You have a chance to fully live, strong and vigorous, all through a very long life, if you breathe enough pure air. This is why I have dwelt so long on, and gone so fully into details of this vitally important matter.

CHAPTER II.

LIFE ESSENTIALS.—WATER AND DRINKING IT.

Our bodies are about three-fourths water. The blood which carries food to every part and brings back waste is largely composed of water. The cells in the liver through which the blood passes are exceedingly fine. Without plenty of water to thin the blood these cells may become clogged and ill health result. The digestive juices are mostly water. The healthy body carries a comparatively large amount of these. There cannot be perfect digestion without a full supply of saliva, gastric juice, etc. The waste of body is carried out by water. The kidneys strain out impurities dissolved in water. The blood brings them to the lungs from which they are sent out in the breath. The perspiration brings out some waste through the skin. The bowels cannot keep themselves clean unless there is an abundance of water in the system. Without this the excrement becomes dry and hard and poisonous waste, which should pass out freely and fully, is absorbed into system and much ill health results.

A drought in the internal economy of our bodies is always injurious, same as when rain fails to come in sufficient quantities for our crops. Crops cannot make use of food in the soil only as it is first dissolved in water. And it is precisely the same in your bodies. All food must be in a liquid form before the system can make use of it.

Now, if man lived entirely in a natural way there would be no need of paying any attention to water drinking, only when we were thirsty, when nature called for it. But man doesn't live this way. Few live and exercise in the open air and sleep with the sky only for a roof. The result of our civilized habits is that

nearly always too little water is drank. And this is partly the cause of digestive troubles, liver complaint, constipation, and, in fact, of about all the ills that come to mankind. Breathing of pure air isn't all that is needed to keep us well. We must also

DRINK ENOUGH PURE WATER.

Robust farmers, working outdoors most of the time, during summer season, and sleeping with windows open, will probably drink all the water they need without paying any attention to the matter. But these same men, if not doing much more than a few chores in winter, if in the house a good deal, may have ill health before spring partly from a lack of water in their systems. Unnatural conditions have checked their thirst. They do not care for as much water as they really need. Women quite generally may not drink enough, summer or winter. Children are more likely to want all the water that is good for them on account of their greater activity. But often they suffer for want of more water. People following any sedentary employment almost invariably fail to drink water enough. They do not care for it, and not realizing the truth do not drink it. It is some the same as it is with air. You warm it in a close home and you must supply it with water to overcome the unnatural condition, or suffer the consequences. You shut yourselves up in home, office, shop, store or study, thus interfering with natural conditions, and you must see that enough water goes into your body each day, or pay the penalty. In either case nature has been interfered with and you must use your brains to make matters right as regards the life essentials.

WATER NEEDED IN COLD WEATHER.—TEA AND COFFEE WILL NOT ANSWER.

We often hear people say they do not need as much water in winter as in summer because they do not sweat as much. Well,

there is more food to be digested, isn't there, in cold weather, and as much or more waste to be floated out of body? True, you do not sweat as much, and thus send as much waste out through the skin. But more is left for the kidneys to do. Disease may come to them and to other organs from poisons not sufficiently diluted with water. You know most of the sickness comes in winter, particularly towards spring. Impure air and lack of water are two of the causes. Some drink almost no water in cold weather. They just depend on coffee and tea for fluid. Time and again have folks said to me that they didn't care for water in winter, as though that was all there was of the matter. But it is not all, as they will invariably find to their sorrow in due time. Nature is long suffering, but never forgets. These people may not ever learn and realize the truth, but they will have to pay the penalty of ignorance just as surely as the days roll on. Coffee and tea furnish the system with fluid, but they also carry in materials foreign to the body, of no use to it, waste that must be washed out. There is no getting around this fact. If the coffee or tea is strong, and particularly if it is made of hard water, it may take about all the water in them to work out the waste they contain. This is a statement that the highest authorities now endorse. So it is a poor sort of an existence that the man or woman leads who depends on tea or coffee to furnish water to the system, and who doesn't like water and hence doesn't drink it to any extent.

HOW MUCH WATER TO DRINK.

The amount of pure water needed by a grown person daily for best results will vary, of course, with their size, activity, etc. In a general way it will usually be between three and five pints. Each one must find out for himself about what his needs are. Drink more than the above amount, of course, if you are thirsty at any time, but never less, after you find what your average need is. Drink the proper amount whether you want it or not, every single day. Here are some pointers that will help you to decide

when you are drinking enough: Saliva will flow very freely when you are hungry, making it easy to chew dry bread until it is dissolved into a liquid and tastes very sweet and good. Other conditions being right, there will be no trouble whatever with the digestion. And the urine will be light colored and clear, leaving no sediment when it stands awhile. And the excrement will be soft and come out freely, once or twice a day, better the latter. If you are living rightly otherwise you will feel buoyant, in fine spirits and work will be a pleasure.

WHEN TO DRINK WATER.

Not at meals, but say from two hours after a meal until an hour before the next one. The very best time will be when you first get up in the morning and not less than an hour before breakfast. More than an hour will not matter. This gives nature a chance to make the best use of water before any food goes down to complicate matters. Water with meals dilutes the digestive juices and makes nature extra trouble. If you learn to chew food properly, and get into the habit of always drinking enough between meals, you will have no desire for drink at the table. I know this positively from years of experience. About an hour before any other meal will be a good time to drink more water. But the morning drink is particularly important. Then when you go to bed at night is another good time to drink, usually. In case of bladder troubles it may be well to drink the bulk of the water in the early part of day, so as to avoid getting up in the night. Years ago the writer had serious trouble this way. Getting up 10 or 15 times was nothing unusual, and sometimes he was much worse. He drinks more now and it is a rare thing that he ever gets up for nine hours. Lack of plenty of water is one of the causes of such troubles. There is always a way to cure such ills. It will come partly through drinking enough water. Wife and I each weigh about 160. We each take about two quarts of water daily. But the water in fruit eaten is deducted from amount drank. The water in fruit is pure. It is

not like that in coffee and tea. We find it no trouble whatever to drink the required amount. I can now drink three glasses when I get up without the slightest trouble, so can wife. In fact, I have to keep my mind on it or I cannot tell when the right number of glasses have been taken. No doubt I occasionally take an extra one because I am not certain.

DO NOT DRINK HOT WATER, OR ICE WATER.

Now comes an important point about water drinking. The water should not be either hot or cold. Hot water is weakening and is not natural. A writer once said it was better to drink cool coffee than clear hot water. That is a little strong, perhaps, but hot drinks always tend to enervate. On the other hand, ice water chills the stomach over much and should never be drank. We drink water at the temperature of living rooms which are kept warm in winter. This water is rarely or never colder than 60 degrees; usually between 65 and 67, as it is kept in coldest corner of house. At that temperature it is easy to learn to drink it freely. A visitor once said, "Why I could drink three glasses of water no colder than that." Certainly he could, and it is just about at the right temperature for putting in the stomach. People who warm water for stock and then drink ice water themselves care for their animals better than they do for humans. In summer we do not use any ice, but drink water at the temperature in the shade, or in house, just the same. The water we drink is always ready in the filter so we can turn on faucet and draw a glass. Many will say they couldn't drink water as warm as that, and really think so, too. So did we once. And we have a cooler in our refrigerator which we bought years ago. Ice in the box comes against side of cooler; is not put in it. But when study proved conclusively that water at temperature in shade in summer was better for us we did learn to drink it that way. And I shall not go back any more than I shall to sleeping in warm, impure air. If you will not learn to drink water at temperature we do, let me beg you, dear people, not to drink ice water.

TRY TO HAVE PURE WATER TO DRINK.

You simply cannot get best results from drinking enough water unless it is pure. Many think that clear hard, water is pure. It is not. It holds minerals in solution, mostly lime, as a rule. It is not natural water, pure and soft, as it comes from the clouds through clean air. It is water that fell on the earth in a pure condition, and in soaking down through the ground it dissolved and held in solution some of what it went through. So there are a variety of things that may be in well or spring water. Man can live on most any of this kind of water after a fashion, and it is far better to drink most any kind of water than to have a deficiency in the body. But anyone who has traveled much in the hard water and alkali sections must have noticed that people look much older at 50 or 60 than they do in the soft water localities. The truth is, beyond question, that the infirmities of age, as we have been in the habit of calling them, are partly brought on by drinking hard water. It is an acknowledged fact now that a man is as old as his arteries are. Years he has lived do not tell the story as well as does the condition of the tubes through which the stream of life flows. If they are hard and stiffened, so as to check the full flow of blood, he is aging no matter how few years he has lived.

BOILING WATER DOES NOT MAKE IT ENTIRELY PURE.

Look at the deposit of minerals in your teakettle when hard water is used. It comes mostly from boiling away some of the water, which leaves a deposit on bottom of vessel. Now remember that the evaporation of water from your body through the skin, and by means of your breath, does not bring out the minerals when you drink hard water. They remain in the little blood vessels and very slowly an accumulation will be formed in the main arteries, as well as in the smaller ones. Nature does all she can to work this matter off through kidneys, and while one is young and very active all seems to go well. But beware.

After a while there comes a time when a serious accumulation of sediment begins to show its effects. One may be lame and stiff and disinclined to activity. The stream of life flows more slowly through smaller and stiffer blood vessels. People complain of cold feet and hands, perhaps, and say their circulation is poor. There is rarely any necessity for this. We reap as we sow. Not having thought it worth while to learn to take care of our bodies, we suffer and die long before we need to. If you use hard water in the pans of humidifiers described in previous chapter through the winter you will find by spring a coating of mineral sticking to the edges. It sticks as though soldered on. It is almost as hard as the iron. Now that water has not been hot at all. It has evaporated much as does part of the water from your body. If you want this hard crust to slowly form in your blood vessels, drink hard water. Before passing from this point it should be said that boiling helps about destroying some disease germs, we are told. But you cannot make lime water soft by boiling it awhile. The sediment in bottom of kettle comes from the water that was boiled away. Steam is pure and cannot take any mineral with it.

THE BEST WATER TO DRINK.

We drink soft water, clean rain water, distilled by nature's great distilling process, which takes up only pure water from ocean, lake, river, earth, leaving all mineral matter and other filth behind. From the filthiest pond hole you ever saw nature takes only pure water up into the air to send down to us in rain. This is ideal water to drink. As the air and roof may contain dust and smoke from man's management, it is necessary to let the first water of a shower run away and catch some later when both have become clean. We have a good well of water which is only slightly hard. And the water is free from all surface filth, as we have none of this around. Ninety-nine out of one hundred do not have as good water to drink as is in our well, probably. But it is not good enough for us, now we know the truth along this line. We intend to keep well and live long. So, as indicated

above, I turn the valve in perpendicular pipe to cistern from the roof and let water run off on the ground until it is quite clean; then turn it into cistern in the ground. After trying all sorts of filters we have done away with all of them and follow this plan. Instead of letting dirt go into cistern and then trying to filter it out, we keep all we can out. But it is not practical to have all the water that goes into cistern entirely clean. In fact one can hardly catch any that is so. We need considerable water for house use. And the best we can do practically there will be some sediment on bottom of cistern when we clean it.

HOW TO STORE AND FILTER RAIN WATER FOR DRINKING.

We have large glazed crocks; 20 gallons is best size, with galvanized covers over them, to put our drinking water in along towards close of shower. Thus we get the very nicest and clearest that it is possible to get from the roof. These crocks stand on a porch in summer, in a cool room in the house in winter, where the water will not freeze much. This almost clean water will keep until used, summer or winter. We have a slate roof, which makes it easier to get clean rain water. But one can do well where water comes from a shingle roof, by taking pains. He can keep out minerals, anyway. And there is a way to take out the color from smoke. We do this, as we believe in doing our very best, and changing as soon as we learn of a better way. This little book is filled with things we do, after much investigation and study. But remember we have nothing to sell. We have a filter standing in the house. It consists of two pails holding about 11 quarts each, one standing over the other and having a cover on it. These pails are made of steel, but covered with a porcelain enamel, white inside, blue shaded outside. The bottom of upper pail is Tripoli stone, cemented in tightly.

ONLY CLEAN WATER CAN GO THROUGH THIS.

Any dirt remains on the surface. This can easily be washed off once a week by using water and a little brush broom. The

water works through the stone slowly drop by drop, but as fast as one needs to have it. There is a faucet in lower pail so one can draw out the filtered water to drink handily. When it is needed I bring in a pail of water from the crock and empty it in upper pail of filter. After it is established it is almost no trouble. It would surprise you to see what that filter will take out of common cistern water. And it takes a little black out of the nicest water we can catch. I do not want even that to go in our bodies. It takes strength to work it out again. We prefer to save the strength for making life a joy. I do not see how stone can clog up, as dirt does not go into it. Scrape the surface a little with glass and it is as white as ever. It will take a good while to wear the stone out with a broom when cleaning. And even then we could get a new one and put in. We think we now have the drinking water problem as nearly perfect as a man can get it practically. When a crock gets empty we wash it out ready for more water. One cannot do this with a cistern very well. With all our care there is a trace of sediment on the bottom. With most farmers it is only a matter of getting at it and doing it, to have pure water to drink. And many in towns can do the same. There is always a way. This plan is far less trouble than using a still.

ABOUT DISTILLED WATER.

Distilled water is just as pure as that we have, possibly a trifle more so. Some may prefer to use a still; may be situated so they cannot catch rain water. These stills are not expensive, the common household size. But you know all the water must be boiled into steam. Then this pure steam is condensed and is called distilled water. Only pure water will go up in steam; no minerals, or filth. But to boil away the water needed by a family to drink will take much fire. Quite a few are using this kind of water. The U. S. Government has it in its great war-ships, and has had for a long time. It is all right. Some writers have thoughtlessly claimed that it was not a safe drink, but they are mistaken. With one exception it is precisely the same as

clean rain water: It is dead water, cooked water, not natural like rain water. Just how much difference this may make no man knows. I prefer the clean rain water, natural water, live water; but if it wasn't practical to have it I should certainly get a still and drink distilled water. It doesn't make a particle of difference how bad the water is, distilling will make it safe to drink.

Now, there is no solvent in the world equal to clean rain water, or distilled water, for use in our bodies. It will dissolve and take up and carry out waste through the kidneys in an ideal manner. Hard water cannot do as well. It has some matter in solution already. It takes part of the power of the water to try and work this out. If you want to avoid, or cure old age troubles, rheumatism, gall stones, arterial stiffness, etc., drink every day, wanted or not, the amount of pure water you need. There are other things that will help, too, like proper food, but you cannot get perfect results without the water. As we have the matter systematized in our home it makes us no trouble to speak of, has become a habit. And we are getting our reward, and expect to continue to do so for many years.

HOW SOME PEOPLE ARE FOOLED INTO DOING RIGHT.

Not a few quacks have got hold of the truths contained in this chapter. And the people mostly being ignorant along this line these quacks are reaping a golden harvest. I know of a firm that has sent out patent medicines, with full written directions how the patient should take them: "A little in a glass of water an hour before each meal and when they go to bed at night. The dose to be gradually increased until they are taking eight or ten glasses a day." All right, if the medicine is some entirely harmless substance. But it is the water that will help them, and with knowledge folks could save their money and get well just as soon. My mother used to dose me with catnip tea, boneset, or pennyroyal, when I was slightly ailing. These and other herbs were gathered and hung in the garret every season. They did good, yes, but it all came from the water in the tea. A kind lady once fixed me up a pint of hot lemonade when I went to bed almost

sick with a cold at a hotel. A pint of water alone, without the sugar, at least, would have done more good. But the lemonade was an improvement over boneset tea, anyway. Some call it thoroughwort. Oh, the ignorance of the past! The quite noted Italian, Louis Cornaro, born in 1464, who lived to be more than 100 years old, and who passed the last 60 years of his life enjoying remarkably good health, and with every sense quite perfect, gives us an experience in this line which is interesting. He did not know about this water drinking. But he was a man of iron will, and he drank very light wines in moderation, and thus got his water. And he did well indeed. But beyond question he could have done better, had even better health and lived longer, if he had drank only pure water. People can probably live to be very old and in fair health, if their lives are very proper otherwise, when drinking moderately strong coffee, made in a percolator, of soft water. But some of the strength of the body is always used up to work off any foreign substance put into it in coffee, tea, wine, etc. So let all such drinks alone if you want to enjoy ideal health for many years.

HOW A HEALER GETS PEOPLE'S MONEY.

Only a day or two ago I heard of a man who says he has a gift of healing by the laying on of hands. Crowds are drawn to him, of course. The first thing he gives a patient is a glass of water to drink. I suppose this is to see if they can drink it readily. Some imagine that they cannot drink water. Then the man goes through with his ceremonies. At parting he gives the patient some wonderful water in a bottle. They are to put a teaspoonful into a glass of water each time and then drink about as much as, and at times we have advised. And you would be surprised how many people are helped and are ever ready to sound the healer's praise. If they could fully realize the truth, as this "healer" does, seems to me they would feel rather cheap. But alas there are many who rather listen to some fake yarn, plausibly made up, and pay out their money, than to simply wash and be clean. So many are particular to keep the outside

of body clean and let the inside get extremely filthy, partly because nature is not furnished with enough water to wash it out with daily. And all sorts of seekers after wealth take advantage of this, now the truth is known to students.

LIQUOR AND SOFT DRINKS.

It is a shame to mention intoxicating drinks in the same chapter with pure water. But I want to say a few strong words against their use. As far back as 900 B. C., Homer advised the youths who wished to gain prizes to "Shun the weakening joys of wine." One hundred and thirty times the Bible sounds warnings against liquor. B. W. Richards, M. D., F. R. C. S., says: "Drink builds up no muscle, but destroys its power and makes it less active for work." Says Sir Wm. Gill, M. D.: "The constant use of alcohol even in a moderate measure, injures the nerve tissues, and is deleterious to health." As to moderate drinking, John B. Gough said: "Every man who becomes a drunkard, becomes so in trying to be a moderate drinker and failing." Wm. J. Cromie, the bright gymnastic instructor in University of Pennsylvania, tells us that "Intoxicants blunt the sensibilities, cloud the intellect, dwarf the soul and descend with their attending disease with fearful power on succeeding generations." "Nine-tenths of the criminals to be tried," says Chief Justice Bovill, "are caused by drink." Horace Greely said: "That some men live long in spite of drinking, no more proves the practice safe and healthful, than does the fact that some soldiers fought through all of Napoleon's wars and are still alive, proves fighting a vocation conducive to longevity." We are indebted to Good Health for pointed illustrations. In view of the above well known facts, and of many more that could be given, every man, woman and child should as a matter of principle

REFUSE TO EVER TOUCH ANY INTOXICATING DRINKS.

And then one can certainly keep the clearest head, enjoy the highest degree of health and happiness, and live the longest

by drinking pure water only. Tea and coffee take mild poisons into the system that are more or less injurious, as is well known. They do not feed, they stimulate. This is nature's effort to drive out the irritating poison. This invariably takes some of your strength. The so-called soft drinks are, well, you don't know what. Fruit flavors you do know have a way of originating in the laboratory of some chemist. Better to avoid the whole list of doubtful drinks. Cider, pressed out of good, clean, ripe apples is allowable, of course, but not after it begins to ferment. There can hardly be a worse place to bring up boys than where there is hard cider in the cellar. "Nine-tenths of the criminals caused by drink." Terrible words. Let no good father or mother be contributory to this cause. If you want to be a full, strong man, if you want to cast your influence all for righteousness, if you want to live to see a hundred summers, or more, having done your very best all along the road, drink only clean rain water, or distilled water.

MORE ABOUT TEA AND COFFEE.

After this book was done my conscience began to trouble me because more had not been said against tea and coffee. Day after day I tried to make it stop, telling it I had said that these drinks were mild poisons, that they contained matter foreign to the system and that clean soft water was the best drink on earth. But the matter kept troubling me. And so I am adding these few lines, so there will be no guilty feeling after the book has gone to the public. The active principle of tea is theine; of coffee, caffeine. Dr. W. J. Hardy, elsewhere mentioned, says five grains of either theine or caffeine will kill a cat, rabbit or other small animal in a few minutes, if injected into the blood. Then he adds that tea contains six grains of theine to the ounce; coffee six grains caffeine to the ounce. Now I have heard women say they used a heaping tablespoonful of coffee to the person. This weighs fully one-half ounce. So if you drink coffee this strong twice a day, or coffee once and tea once, you may each day take into your system about

ENOUGH POISON TO KILL A CAT.

Does it hold to reason that this can be done year after year with no injurious results? And the effect of any poison weakens by long use, so there is a tendency to increase the dose. And your sons or husband may increase it by taking something stronger. Dr. Holbrook, in his book, says: "The number of tea drunkards is legion. They are as much slaves to the teapot as the drunkard is to his bottle. Tea is a poison capable of ruining the stomach, enfeebling the heart's action, shattering the nerves and ruining the health." It is very much a question in my mind if tea and coffee in the aggregate are not doing as much harm in the United States as are intoxicating drinks. This largely because they are such common drinks. Almost everyone uses them. I wish really that I could tell you that "the cup that cheers without intoxicating" was harmless. But I can't. It is poisonous.

IT CREATES AN APPETITE THAT MAY NOT STOP THERE.

You know not the harm you may be doing when you put the cup to your children's lips, or your neighbor's, or to your own. Of course, some can stand these poisons better than others can. And weak tea and coffee steeped but little is not as harmful as a strong product long boiled. Boiling or steeping extracts more of the poisons. But isn't it wiser to not play with danger? A little incident that I can vouch for may interest the ladies. I want to show them all the advantages of giving up tea and coffee. A certain observing woman said to B's wife: "How well your husband looks. I have been noticing how clear his complexion is. He is

A PICTURE OF PERFECT HEALTH.

It so happened that B didn't drink tea or coffee, which was one reason for his having so clear a complexion. His wife had drank coffee freely and some tea. She stopped at once, much

to B's joy. And in due time she may be a perfect picture of health. All the ordinary preaching in the world, perhaps, would not have brought about this good result. But a brighter, clearer, more healthy looking and younger face appeals to any woman. The writer feels that he is no way misleading you when he offers this inducement to those who will drop all tea and coffee, and live wholesome lives otherwise. There, my full duty is now done.

CHAPTER III.

LIFE ESSENTIALS.—SLEEP AND STRENGTH

Some years ago Dr. Dewey astonished the world by declaring that strength does not come from food, but that in some unknown way it comes to us during sleep; that we cannot get strength from the dining room, but must go to the bed room for it. It was such a startling departure from old teachings that many looked on it as a wild statement. I was inclined that way at first. But after years of study and investigation I am fully convinced that Dr. Dewey was right. It is in my estimation one of the greatest discoveries of late years. Its value to mankind can hardly be estimated, if people will listen and be guided by the simple truth. People think they get strength from food; the more food eaten the more strength. So they are often led to eat far more than they need. The result is less strength every single time. For it uses up and wastes one's strength to digest a single ounce more of food than is needed. Digestion is always a tax on strength. Food is needed to repair waste and to keep up animal heat, of course. But the amount required for this purpose is small. Eating any more will not make you stronger, but weaker. When I consider the very small amount of food I eat in a day, and the work of head and hand that I do, I am simply forced to conclude that strength does not come from food. No human machine could by any possibility develop the strength I use up in a day from ten times the food I eat. So I must say to you that in some way strength, vitality, whatever you please to call it, flows into us directly from the Infinite while we sleep. We do not generate it; it is simply impossible. It comes into us. As we breathe deeper and more fully when

asleep, I feel that in some way our increased strength comes through the air we breathe. Hence the vital importance of having it fresh and pure in our bed rooms.

A SIMPLE ILLUSTRATION OF HOW STRENGTH COMES.

Let me give you one little incident out of many that have come to my notice during past few years. I took a granddaughter a trip of 14 miles and back one day last summer. We made quite a visit at her other grandfather's and called to see another friend also on the way home. We were up early, and late getting back. To use a common expression, I was just completely all in when I got the horse put out and sat down in our home. It did seem as though I couldn't go upstairs to bed. I simply had used up all my stock of strength; a very unusual thing for me to do. Now, I was wise enough not to eat a mouthful under these conditions. I went to bed without my supper. There was no strength left to digest food, and to have eaten a small meal then would have made trouble. I have done such things, before I knew better. Well, I went to bed in the fresh air of our summer bed room, with three windows all out. Sleep came quickly and I slept soundly. I awakened in the morning feeling as strong and vigorous as I ever did; was fully up to par. Now tell me where that supply of strength came from. I had not eaten a single mouthful since I was so used up the night before. Allow me to tell you, dear friends, that it came directly from God. There can be no other explanation; I do not want any other. Knowing about this matter has made a marvelous difference with my life. I do not wish to argue the matter with you much. It would be out of place in this little book. Study out the truth for yourselves, as I have for myself.

WHY WE FEEL STRONGER RIGHT AFTER EATING.

I will take space to answer one common objection that will come to the mind of many. You eat a meal when you feel tired,

you say, and then feel refreshed and stronger right after it. Well, when you felt stronger you had not digested and appropriated that food. By no possibility could you have gotten strength directly from the food eaten in so short a time. But you felt stronger, certainly. And it came about in this way. The food put into your stomach, needed or not, roused up your system to take care of it; it called some of the strength stored up the night before into use. You felt this awakening. By the time the food was really digested, and the body was making use of some of it, you were tired again. In just the same way a person who feels, not hungry, but faint and used up when he gets up in the morning, and thinks he must have something to eat at once, feels better for a time after eating. It comes solely from the rousing up of the system to try and take care of the meal that was not needed. He was faint and used up partly because too much food had been eaten in the past. It would be impossible to put this matter into a clearer form than does Elizabeth Towne, in *The New Science of Living*. She says: "Too much food sets up a state of general inflammation throughout the body, which you interpret as a call for more food, when in reality it means there is already too much on hand. A stomach that is generating ferments calls for more, more. And another meal piled in gives temporary relief." We are running into the food question a little ahead of time, but it seems necessary in order to fully explain the great value of enough quiet sleep.

HOW TO GET THE MOST STRENGTH.

A big matter which will have to be treated under several heads. First, the last meal should not have been over heavy, and should have been eaten long enough before bed time so digestion is well along and the stomach practically empty. The object of this is so the strength flowing into you during the night will not need to be largely used to carry on digestion; so all organs of body can slow down in their work and partially rest, and the boiler be full of stored power to the blowing off point

when one awakens in the morning. Next, when you go to your bed room leave every worry behind. Be at peace with all the world. I can remember when mothers used to take this time to punish their children. God forgive them; they know not all they did. If anything has gone wrong during the day, learn to drop it absolutely when the sun goes down. To hold anger, or ill feelings, against anyone will injure you, not them; will not leave you in a condition to take in a full supply of strength from the Almighty. When you lie down learn to relax every muscle. Let the bed hold you up entirely. You may laugh at this. But you watch closely and see how many of your muscles are working unnecessarily. It is not easy to drop all the tension. Few are in the habit of doing it. But if you can drop to sleep when in this condition, no worry, nothing unpleasant on your mind, at peace with God and man, muscles all relaxed, you are in the condition to receive the maximum of strength.

MATTRESS, SPRINGS AND BED CLOTHES.

The bed and position you occupy have something to do with your storing up a full load of strength during the night. The bed should be about flat, not inclined to sag much in the centre, and reasonably soft. A first-class cotton felt mattress on good springs makes as perfect a bed as anyone needs. The woven wire springs, fastened at each end, are very good and cheap. The "Ideal" springs are better, particularly if two persons sleep in a bed. In fact, they are rather the best springs we have been able to find. A No. 1 cotton mattress can be bought now for about \$10, so they are within the reach of most people. And they will last many years and never get bunchy. We have one of the much advertised \$15 ones, but it is no whit better now than one bought of a reliable mail order house for about \$10. As to bed clothes, the lightest you can have over you and keep warm the better. A new cotton comfortable, made of sheets of loose cotton felt, will give more warmth per pound of weight than will woolen blankets, and cost less. But there should be one woolen blanket

next to the sheet, because it can be washed more readily than a comfortable can be. Quite a little filth from the body will get through the sheet into this blanket. Mattress and bedding should be put out in the sunshine often.

POSITION WHEN SLEEPING ALONE.

After much study the writer has settled on the following positions for sleeping: If you are alone, have two rather thin pillows, end to end, but 8 or 10 inches apart. When you lie on your back have your head between the pillows. Thus your body will be about straight from head to foot. This gives the chest and lungs full freedom. Everything you can do to make it easy for lungs to do their full work I believe will increase your stock of strength next day. Lying with head on one or two pillows compresses the lungs some, and then it tends to make one round shouldered. A bolster should never be used under a pillow, as that makes matters worse. Notice how many old people go around with their heads bent far forward. This is an unnatural and injurious condition. It comes partly from having pillows under head when lying on back. But if you have been used to a pillow you will need to change slowly. Use one a little thinner first, and so on until you can lie with head flat on bed with entire comfort. If I should get a pillow under my head now, when lying on my back, it would waken me. Now, when you want to turn on to either side you have a pillow under your head, as when on your back you are lying between the ends of two. You need the pillow when on your side to make up for your head being narrower than shoulders. If food is all out of stomach I find little difference which side I lie on. If there is still food there it can flow out more readily when you lie on right side. And the heart is said to do its work a little easier when one is on right side. But I doubt its making much difference. If you are comfortable don't worry about your heart. Some scientists claim that we should not sleep on our backs. I cannot see any sense in this idea.

SLEEP IN THE EASIEST POSITION.

If you are comfortable on your back, or on either side, sleep there. But it is well to change about, not checking the circulation too long on one part of body. I do this now without waking. If I go to sleep on right side I often waken on my back, head down in between pillows all right. Now comes the matter of position when on the side. It is somewhat important. Your organs will be least crowded; have best chance I think to work properly, if you lie about as follows: On right side, right leg about straight, body over enough so about half the abdomen rests on bed, kept from going farther by using left leg, and right arm, as braces to prevent your turning farther. Bend left leg at knee, push knee out nearly at right angles to body, and let inside of knee, leg and foot rest on bed. Bend right arm at elbow, push it out same as leg and let upper part rest on bed, fingers lightly on left shoulder, left arm disposed of in any easy position. When you lie on left side simply reverse all these positions. With a little care at first you will soon find yourself always taking about these positions when lying on side.:

POSITION WITH TWO IN A BED.

I have told you how to lie when you are alone in bed. If there are two in the same bed suppose you lie on right side of bed. Place a box alongside of bed at the head, or a chair with something in it so top is as high as top of mattress. Then slip your pillow off about half on this chair, or box. This will give you a place to put your head on mattress on your half of bed when lying on your back. And you can turn on your right side and lie on end of pillow. If you want to turn onto your left side you will need to pull pillow along a little. I have learned to do this without rousing up enough to waken me so but what I drop right to sleep again. But it is not often that I care to turn on my left side during the night. I usually go to sleep on right side and after a time roll onto back, and possibly back onto side again. With bed away from wall, as it should be always, two people can

work this scheme, having a chair each side of bed. Perhaps you snore when on your back. Then tie up your head so your mouth will not open, until you form the habit of keeping it closed. It is not a difficult thing to do. Fix a little harness of strong cloth passing over head and under chin and around back of head. You can buy these already made, but it will be a simple matter to make one.

HOW MUCH SLEEP SHALL ONE TAKE?

All he can get. There can be no question about this. Nature does not make mistakes. When she calls for sleep it is needed, and if one fails continuously to heed her calls trouble will surely come as the result sometime. A few years ago a hard working woman said to the writer :“Oh, if I could only sleep as long as I want to, need not get up until I feel like it, I would be a happy woman.” But she didn’t take the hint, and today she is a nervous wreck and life a burden much of the time; old far beyond her years. Nature never forgets to make one pay the penalty of violating her laws. It seems to me simply wicked to make a practice of waking growing children in the morning. Put them to bed earlier, if they do not get their sleep out in time for breakfast. If you older friends persist in cutting down your hours of sleep at both ends, being out at night and wakened by an alarm clock in the morning, why, you will be old before your time, if indeed you live that long. Among the greatest teachers and students on earth there is no longer any difference of opinion on this point. You can safely be out one night, if you will make it up the next, or take a nap in the day time. But there will always be a penalty for persistent robbing one’s self of sleep that nature calls for. There can be no iron clad rule about the number of hours that should be spent in sleep. All do not need the same amount.

TAKE ALL YOU WANT INDIVIDUALLY.

This may be six hours, or nine, or more, or less. Some do not need to sleep more than five or six hours, cannot. There is

a good reason for this. They either do not do much work, have not used up much tissue that needs replacing, or they are very abstemious eaters and haven't used up strength working unneeded food out of the body, or in other ways. To be tired, you know, is simply to have the blood overloaded with waste from tissues used up by exercise, and nature calls a halt until she can catch up and work out this waste. To illustrate the other point I cannot do better than refer to Edison, who for many years has been in the habit of sleeping for only four or five hours in a night. And I have his published statement that he is a very small eater, consuming no more than a pound of food a day. Not wasting any strength on unneeded food, he requires less sleep to store up strength. Captain Diamond, of California, is another good example of this. When he was 112 years old he wrote that he had always been a light sleeper, four and one-half hours of sleep being his average at night, but he lies in bed from eight to ten hours and rests. He never sleeps any in day time. If he had been a hearty eater he would have needed more sleep, and would have been buried long ago. For 70 years past he has lived on the cereals, fruits, nuts and vegetables. He says he cured himself of rheumatism and other old age complaints when he was 42 by leaving off meat, tea, coffee, etc. There is one special point in this report that all will do well not to overlook. Rest quietly in bed for as much as eight hours anyway, if you cannot sleep more than six. You will gain by it in the long run.

ALL ABOUT SLEEPING FEWER HOURS AND MORE HOURS.

If you fall into the general line of living advised in this book you will in due time find yourself needing less sleep than you used to before, perhaps. This particularly if you follow after the teachings of the next chapter, eating plain food and not too much of it. You will not need so much strength, because you are wasting less. Hearty eaters require more sleep because strength is wasted taking care of surplus food, and they get strength from sleep. I want to try and make this point still

more clear. Say you sleep nine hours and find it hard to rouse up then. And still you will probably feel somewhat stupid and may think you are sleeping too much. Not at all. Nature calls for the sleep and is doing her best to strengthen you under the circumstances. But if you will cut down on the surplus food you are doubtless eating, and possibly you may be overworking, too, you may waken after seven hours sleep, wanting no more and feeling splendidly. Then seven hours is enough for you. All the sleep you can take is needed, but if you sleep long changing your habits may make you sleep less and feel better. Do you catch the point? You are not feeling better simply because you take less sleep, notice, but because you live so properly that you need less.

INCREASING ONE'S STRENGTH.

Another important matter is that you use each day pretty nearly all the strength you have, but not quite. Leave a slight margin. The law of life is use, muscles, brains, strength. My opinion is that one who fails to use about all his daily supply of strength will not receive quite as much in following nights. Nature does not give only as we need. On the other hand, if you use up your supply quite closely nature will deal out to you a little more so as to be sure you have enough. And this, in connection with other good practices, is the only way we can gain in strength, and it is wonderful the amount we can secure in this way in due time, if careful. Entire rest for a day or two may be good for a completely tired out person, but long-continued rest will never give one a large degree of strength. When you fail to use it you lose. Proper use brings an increased supply, up to a limit not known to man. You probably read about Gilman Low, who left all the world's records out of sight by lifting a million pounds in 35 minutes. That is, he lifted a thousand pound weight a thousand times. He increased his strength while getting ready for this tremendous feat, by eating very lightly of simple food. He trained specially for eight weeks. During the first five weeks he ate but one meal a day. His food was eggs,

whole wheat, raw fruits, nuts or cereals and one glass of milk drank after the meal. He drank freely of distilled water between meals. During the last three weeks he ate but four meals a week. Second, during the entire time he kept outdoors all he could, walking much, breathing deeply, and taking light gymnastic exercises. Any amount of similar proof could be given that food is not the source of physical power. This power is given us from on high, as we need it, if we do our part.

DO WE GET ALL STRENGTH FROM SLEEP?

I think we do nearly all, although some little may come to us in other ways. For example, suppose you are not very well. You read some of the chapters in this book and the way up seems so plain to you that you are greatly enthused and feel stronger at once. So it seems to me quite possible for one mortal to so earnestly suggest the truth to another as to actually give the ailing one some of his own strength. Were I a physician I should surely get all possible out of this in holding up patients until I could teach them to so live that abundant strength directly from God would flow into their bodies. Allow me to make the distinction between the apparent strength that comes from rest and that which we get from sleep, more clear. If we get tired, rest a few minutes and feel strong again, it is because nature has caught up, and the blood has got the waste about cleared out. Back of this we still have a stock of strength, invariably. When I was completely used up, as spoken of in the first part of this chapter, temporary rest did not and could not revive me. My stock of strength laid in the night before was used up. The storage battery was empty and must be recharged by going to sleep. It is possible, nay probable, that we gain a very little real strength from rest. But that we do not get anywhere near a full supply this way is evident from the fact that a mortal will die in a week or so without any sleep. Study into these matters earnestly, kind friends, and you must decide that the above teachings are substantially correct. Now, I want to say to you further

that while writing this little book I have allowed myself to eat for breakfast very little indeed except an abundance of fruit, and then nothing more until 4 P. M. Thus I have been able to write continuously for seven hours, with every nerve strained to the utmost to put the truth clearly.

DOING THE VERY BEST THAT IS IN ME,

And without the slightest feeling of being tired at the end of my day's work. I am usually fairly boiling over with strength when I get up in the morning and I simply have saved most of it for you. Can you read this passage without feeling a little of it flowing into you? And I haven't lost a pound of weight, either; weigh a full 160, which seems about my normal weight. Oh, that I could have known these truths sooner! I could have done vastly better work in the world. But it is never too late to learn. One of the most talented women in the United States has been studying and practicing along the lines given in this book, and the following is taken from one of her delightful letters: "What a fine thing it is to see stacks and stacks of work and feel equal to it all. Mornings I feel something as an engine must when pressure of steam raises the safety valve, only I can vent my strength by pushing the work. And work seems to me now like play. It is a delightful pastime." Few women work as hard physically, or are as bright mentally as this one is. Few have learned to so live as to make work a pastime and life a joy.

ANOTHER EXAMPLE OF HOW STRENGTH COMES.

In January I spent a Thursday in Cleveland attending to some unusually important business. I was studying over it all the way up and back. I was decidedly tired that night. A light supper was eaten, but I did not sleep as well as usual. Friday was spent in writing, but was not quite at my best. At 3 o'clock I felt as though I didn't want to do any more. My strength was

getting low. I quit work at once. Ate lightly of potato, bread and butter and fruit only for supper at 4. Went to bed at 8. Was asleep, lying on right side, before clock struck the half hour. Roused a little just as the clock struck four. Was lying on back, head flat on mattress, and rather tired of the position. Turned onto left side and a minute later, as it seemed to me, the clock struck six. Got up soon, just filled to the brim with strength and ambition for work. Ate a very light breakfast, mostly fruit, and easily and with a clear head did one of the largest day's work of the winter, continuing right up to 4 o'clock without a thought of being tired at all. The business in city, a large matter for us, rather overdrew on my strength. Light meals, and nine and one-half hours of solid, restful sleep, with two windows open wide, put me way up to par again, with some to spare. It would have been absolutely impossible to have obtained this result after my Cleveland trip by eating more food. In fact, it would have had just the opposite effect, as I have learned so many times before I realized the truth. Oh, words are so feeble to express what I know along this line.

In closing this subject, I wish you, not "pleasant dreams," but no dreams at all, just all you need of peaceful, restful, perfect sleep, so the Infinite can fill you to overflowing with strength for the morrow's work.

CHAPTER IV.

LIFE ESSENTIALS.—FOODS AND EATING THEM.

In discussing these great questions about which there is so much difference of opinion, I shall earnestly seek to give you the plain truth. You will have the best I have been able to learn from long years of study. All the facts will be laid before you as clearly as possible. If they seem all right to you, then you can govern your lives accordingly, more or less, just as you choose. The writer has no hobby or fad in this line, or any other. During the last ten years he has been doing the hardest thinking of his whole life, trying to find out for his own use how to keep perfectly well and as a result, of course, to live long. He will tell you just what he eats, how often and why. Every idea in this chapter is the best he has been able to get hold of and therefore is in accordance with his own practice. But he will not urge you particularly to do just as he does, rather will lay the facts before you.

Gradually, as people have got more and more money, a great variety of foods have come into use, many of them sweetened, and spiced, and mixed, and cooked, and baked so as to tempt the appetite way beyond the real needs of the body. We are not eating to live so much as living to eat. In plain English, we are fast becoming a nation of gluttons. It is safe to say that the great mass of people eat about twice as much in substance as they need. The last half of the food eaten in such cases

GOES TO MAKE TROUBLE IN SOME FORM.

For example, perhaps one eats all he cares for of good bread and butter, potato and meat. Then he has enough anyway and should stop. But no, he goes on and eats a liberal piece of pie, or some pudding with rich sauce on it, or both, or some cake, and perhaps fruit. I have often seen people do just this way; used to do it myself before I knew any better. Now, the man was tempted to eat these last dishes largely because of the sweetening, spicing and fancy cooking. And then it is a custom people have got into. A little child once told his mother, when urged to eat more bread and butter, that his bread and butter place was full, but he wanted some cake to fill his cake place. It is a habit of tempting the appetite beyond the normal that is but too common among old and young. And all the food eaten beyond what one is actually hungry for of the plainest kinds, goes to injure us, to help bring on all sorts of ills and sickness, to shorten life. But 99 out of 100 perhaps do not realize this. If one lives properly he or she should always be well, never **know** any aches, or pains, or sickness, except from accident.

WE BRING ALL THESE TROUBLES ON OURSELVES.

They come from violating simple natural laws. The writer has never found anything more surprising in all his studies of health matters than his experience with foods. He has cut down in various ways, thinking he was at the lowest notch, only to find later that less yet gave more ideal results. And still he met a man of more than ordinary intelligence the other day, who is suffering everything from over eating, and when he tried mildly to advise him to eat less, the man turned on him fiercely with: "What, starve myself?" Poor man. He will never be well, and will be buried soon, unless he learns the truth and eats less. He seeks doctor after doctor and different kinds of treatment, but none of them can have any lasting effect as long as the cause of the trouble remains. It is hard indeed to make people see what they do not want to see.

WHAT IS FOOD EATEN FOR?

So the body may have materials from which to make growth until maturity, as well as make good its own waste. After maturity we only need to eat enough to renew tissue worn out by exercise and keep up the animal heat. Many things are eaten that do not serve these purposes, or that serve them poorly. In every case they are more or less injurious. They tend to shorten life and bring on various troubles. While it is true that the system will in a measure become accustomed to injurious things that may be taken into the stomach, so one gets along fairly well, sooner or later he will have to pay the penalty of such violations of natural laws. He will soon pay it in not feeling as ambitious as he might, and with head not as clear, and there will be slight ill feelings here and there. Thus he will not accomplish as much in the world as he might. Animals in a state of nature eat only such food as is proper and good for them, and the variety is very small. Man eats now every sort of kind, and every mixture and make-up that numerous cooks can invent. And he suffers accordingly. Calling fruits in general one kind, he can easily count on his fingers

ALL THE KINDS OF FOOD HE HAS ANY NEED FOR.

And all of these will be good for him. When man gets ready to simplify his living in about this way it will be one of the foundation stones on which he can build a very long life, free from ills and diseases. A great deal has been said and done in the way of overcoming intemperance in the line of drinking. And people have gone right on eating themselves into trouble and shortening life more on the average than has ever been done by liquor drinking. This because there are so many more people affected. But the awakening along this line is great. During the past ten years people have got into the habit of thinking more than they ever did before. There are many thousands to-day of the brightest, yes and wealthiest of our people who are

living simply and wholesomely, and reaping the reward. And the good work is spreading. Of course, many object to these simpler and more natural ways of living. But slowly the powerful influence of those who are doing it and know will have its effect. People are gradually getting too bright to hold to old theories against facts, to let others get ahead of them, to suffer and die while others are ideally well and live.

THE FOODS OF PRIMITIVE MAN.

We are told that the line of ancestors from which we descended lived originally in a warm climate and ate plants. As the ages rolled on fruits came and were eaten, and also nuts. As far back as history goes a small berry or seed produced by a wild grass was used as food. From this has gradually developed our wheat in the cool climates and rice in the warm ones. They are both good food for man, now, same as when first gathered from the wild grass. A very large part of the world lives partly on these two grains. They are sometimes abused and when eaten are not as good as nature makes them, however. But with them in a natural condition, and nuts and fruits, man does not really need much more. Our ancestors had to live in a warm climate because they subsisted on plants and later on fruits. The adding of nuts, wheat and rice to the world's supply of foods enabled mankind to live in colder countries, where arrangements must be made for winter food. It seems certain that meat eating came about as a matter of necessity to keep human beings from starving when they could not get the kinds of food nature intended them to eat. Now, in this brief outline we have passed over much time. But the digestive tract man has now is essentially the same he had when he ate plants, fruits and nuts only. The comparatively brief time since then has not been long enough for any material change in the way of evolution. And still

MAN HAS GREATLY CHANGED HIS HABITS IN REGARD TO EATING.

Until he pays reasonable attention to eating the kinds of food his digestive tract was made to handle, he will continue to

have trouble. There is no getting around this fact. When we put ourselves up against the Creator of all, we will suffer. But this almost invariably comes from thoughtlessness and carelessness. The change to wrong living has been very gradual and people have failed to connect their wrong habits of eating with the hundred and one ills and diseases with which they are now afflicted. The Creator, beyond any question, arranged our bodies so they could of themselves ward off all ills, if we lived reasonably near as we should. Nature allows a fair margin for error. But when we stuff ourselves with articles called "foods," which are entirely unfit for us, our bodies are weakened to the point that they can no longer resist disease.

Meat eating animals have a short and smooth alimentary canal, so waste can pass through quickly. That of the dog is about three times the length of his body. Man's alimentary canal is about six times the length of his body, and the colon is very large and not smooth. The result is that when man eats meat, the waste from which decays very quickly, when it is kept wet and warm, poisons are formed and absorbed into the system. His alimentary canal is too long, and colon not small and smooth enough to handle such quickly putrefying products. He was made to eat vegetables, grains, nuts and fruits, which do not decay so readily. This is the simple truth.

SCIENTISTS WANT TO MAKE MAN OVER TO FIT THE FOODS.

Do you know there is actually serious talk among the leading scientists about cutting out parts and making over man's digestive tract to fit the foods he wants to eat now? The dean of a medical university made the statement before his class that the stomach was becoming a dangerous, and, in fact, a useless organ, and that it could easily be dispensed with, in many instances with real benefit, since it was responsible for so much food decay and fermentation. Not one word was said about our being responsible for putting unnatural food into the stomach; oh, no. That is too simple and unprofessional a way out. And

then you know it is a fad to cut out the appendix. But with such foods as God intended us to eat it would never make a particle of trouble. Prof. Metchnikoff, who is as high up as any present authority I can quote from, actually says: Life is shortened by the deadly poisons formed in the large colon; that this organ is not only useless in man's present state, but positively harmful, and he predicts that in the distant future it, like the appendix, will be removed with advantage to the individual. It seems terrible to me that these great men should waste their lives and knowledge leading people farther wrong, instead of urging them to eat foods suitable to the body as God made it, and have no further trouble. It reminds me of the story of the little boy who was watching his father cut off the lambs' tails. After puzzling his little brain over the matter for a while he said: "Father, God doesn't know how to make lambs, does he?"

THE DIGESTIVE TRACT NEEDS TO WORK AND THEN TO REST.

Now, not only has trouble come from improper food, but also from eating too much food. And improper food has been largely the cause of over eating, but not wholly. I think that in many cases we eat too often. The digestive tract gets no rest. It is continuously at work. And after a while it gets irritable and perhaps more or less inflamed. As a result of this bad feeling we think we are hungry, when really we have no need of more food, perhaps have too much in your systems already. But there is an uncomfortable feeling in the stomach, which needs rest; instead we put in more food, saying we are faint and must have something to eat. This stimulates for the time being, by rousing up the life forces, only to make matters worse in the end. Some six years ago wife and I decided to stop eating three times a day. I had been experimenting and studying over the matter for years.

EATING TWO MEALS A DAY.

We began eating breakfast at 7 in summer and supper at 4. For a few days we probably ate as much as before, and we

got very hungry by supper time. But soon we got over this and ate no more at a meal than we had when eating three times a day. And in due time we found ourselves eating even less, probably no more than half what we had years back. And we do not get hungry between meals. If I should see something nice that I liked along about noon, of course, I should want it. But not seeing it, and being busy always, I never think of being hungry. Neither of us eat anything between meals. In the winter we eat breakfast later, at 7.30 for a time, and at 8 when days are shortest. My wife is as well pleased as I am with the arrangement. We shall never go back to the old way. In the line of saving work for wife it is a great thing. But that is a mere nothing alongside of the better digestion, better sleep, and better health that has come from eating less, and less often, as well as from proper food. Unless we over eat we always come to the table with a hearty appetite, with real hunger. It is not caused by an irritation in stomach, but by genuine hunger for plain food.

HUNGER IS THE BEST SAUCE ON EARTH.

Having that, we can easily dispense with the many condiments, spices and mixtures that are commonly used to spur up a jaded digestive tract to endure a little more. This is just what I have done many a time before I ever thought a word about it. I say to you in all earnestness that I never before got so much enjoyment out of eating, per day. Things taste as good as when I was a boy. And I have sense enough to taste them longer by eating slower. And what is better, the plainest of proper food gives all this good taste and enjoyment.

Some eat but two meals a day by going without breakfast. Others go without supper. Both will help one about not eating too much, and will give the digestive organs more rest. But we believe the most perfect plan is the one we follow. It was carefully studied out before we began. With almost eight hours between meals in the daytime, and sixteen during the night period when we are working less, we think we are keeping our blood as

evenly and perfectly supplied with food as it is possible for mortals to do. And, as you were told in previous chapter, the digestion is largely out of the way before we go to sleep. Thus our organs are not wrestling with food all night, but are storing up strength for the morrow's work. The subjects in these chapters all dovetail in together so that it is not possible to treat one of them independently and wholly by itself. And I must ask you to study the entire book, every chapter, every page, to get the full, complete system we are following, and why we do it.

WHAT I EAT.

I think now you will begin to understand why the writer eats such simple, plain food, and but two meals a day. And you will be desirous of knowing just what he eats, and about how much. Here it is: My usual breakfast for years has been considerable fruit and two ounces or more of uncooked flaked wheat, eaten dry, with a little butter. Just this and nothing more. For convenience we buy Pettijohn's breakfast food, which is nice, clean rolled or flaked wheat, put up in paper boxes. I take a little butter on a spoon and fill spoon with wheat and put in my mouth. Of course each mouthful is chewed long. A slice of graham bread and butter is nearly as good as the wheat, but we will bring up this point in another place. I eat some bread occasionally, if I want it, instead of the wheat, but not both at once. The fruit eaten is whatever is in season, berries of all kinds, peaches, pears, melons, apples, etc. We have apples during the entire winter. And then dried fruits are eaten along with them. These are not cooked, but soaked up in water so as to make them about like fresh fruit again. I usually eat two or more kinds of fruit at a meal, and eat them freely. I may safely say I never ate so much fruit before in the same time as I have during the past year.

I EAT FRUIT AT EVERY MEAL.

Last night for supper I ate a good sized cold potato, boiled with skin on, one slice of bread and butter, about eight English

walnuts and fruit. Sometimes the meal is made still more simple by leaving out the potato. Or rice, or sweet potato may be added in place of it. I am going to tell you the exact truth, or this book would have little value. Wife often boils potatoes with the skins on and they crack open all mealy and nice. Then we eat them warm that night and perhaps cold for two more nights afterwards. This is better for us than to eat them fried. And they are better boiled with the skins on than when peeled first. Less of the substance boils out in the water. But potatoes are best baked. We often eat them that way. Once in a while we have something a little different from what is named above in the way of peas, beans, cheese, corn bread, etc. I eat practically no meat when at home, no pie, no cake, no biscuits, no mixtures, no mushes of any kind. Having tried this way of living for some years, I know that the old talk about a great variety of food being necessary for best results is not correct. It is best if you want to be induced to overeat and to be troubled more or less with ordinary human ills. It is very little I need to eat aside from wheat, butter, nuts, potato and fruits to be satisfied and to keep ideally well. And don't imagine that I am poor in flesh, for I am not, but am plump and plenty heavy enough for best of health. Mrs. Terry is the same.

A BALANCED RATION.

Right here let me digress long enough to explain briefly about the different constituents in foods. They are usually put in four classes. They are protein, fat, carbohydrates and ash. The protein furnishes materials for making blood, flesh, etc. It is necessary to repair daily waste of muscular tissues and to furnish growing material for the young. Everyone must have a certain amount of the substance in order to live. It is also called by other names, such as proteids, nitrogenous substances, etc. You all know what fat is. It is a concentrated heat producer in the body. A small amount of it is needed. The carbohydrates consist mainly of starch and sugar. We do not eat

starch directly, as you buy it at the store, but get much of it in potatoes, rice and the grains. The ash is the mineral part of foods, what would remain if one should burn them. A number of minerals needed by the body will be found in the ashes of proper food. But we have no occasion to think about these, if we eat the proper food. The term, "balanced ration" is often used. It means a supply of food containing about the proper proportion of each of the substances named above. To leave out one, or have a large excess of another, may make trouble. But the matter is a simple one, as you will see before you are through studying this book. Wheat, with the addition of a little fat, is a balanced ration. It contains all, practically, that we need in the line of the four substances named above. You see why it is common to eat butter on bread. It balances up the ration.

THE AMOUNT OF WORK WE DO.

From what was said above you may be thinking that we do not work much, as we are along in years, and hence do not need much food, and two meals a day may answer for us, but would not for you. It is well to be sure you are right. If you are not ideally well always, without a pain or a bad feeling, if you lack ambition and energy, if you feel used up at times, why not try our plan faithfully for a few months? That is the way to learn. it is the way we did. It is no use to try it for a week or two. It will take some time to get the system used to the change, or to any change, even for the better. Mrs. Terry is from choice a very active woman. She is on her feet and busy at something almost constantly. She eats a very little meat, and bread instead of flaked wheat for breakfast, otherwise there is little difference in our foods. She likes the flaked wheat and has often said she would not bake bread, only that we must have it in the house for company, so she eats it. I think she eats no more in quantity than I do. I am always busy at something and take considerable exercise, but usually spend six to seven hours a day at writing or studying. A brain worker is not supposed to require as much

food as a muscle worker; perhaps he doesn't quite. But the truth of the matter is that the work of the heart, digestive tract, etc., go on steadily day and night with both brain and muscle workers. And the tissue worn out in these ways and needing replacing is a larger matter comparatively than most people think for. The average day's work of a laboring man, according to Holbrook, uses up no more muscular tissue than does the action of the heart alone during 24 hours. The old tables given in books are all badly wrong in regard to the amount of food a person needs in a day. They simply give the amounts commonly eaten by laboring men and others. Then it was assumed that this was about the proper amount. That is just about as careless as a whole lot of old teachings are.

LESS FOOD BRINGS HEALTH.

It is now perfectly well known that about half as much food, on the average, as was formerly supposed to be right will give far better results, if there are proper proportions of the different food constituents. The changes for the better will usually come largely with grown people from eating less protein in their food. This nutrient is furnished by lean meat, eggs, cheese, peas, beans, nuts, etc. Wheat bread furnishes it in pretty nearly the right proportion. To go with the vegetables and fruits a little extra protein will be needed, but not much, except for growing children. You noticed that I eat a few nuts once a day, or perhaps a little cheese, or a small quantity of peas, or beans. It is done to balance my ration, to get enough protein in it. I do not eat but one of these foods rich in protein, however, at a meal, and then am very careful not to overeat of that one as therein lies special danger. We owe our rheumatism and the various uric acid troubles mostly to eating over much protein. To put it in simple form, for busy people, not for scientists, digested carbohydrates, starch, etc., in food are burned up clean, leaving no sediment in the body. But an excess of digested protein may not long be burned up entirely into fine ashes that

can be washed out, but there is more or less waste left in the blood, minute cinders, so to speak, instead of ashes. In time these may settle in muscles and joints, giving us excruciating pain when we try to move them. This is rheumatism. If it settles in the muscles of back it is called lumbago, and so on through the list. It may settle most anywhere, as you can easily see. It is a simple matter to prevent such troubles, or cure them, unless joint has become permanently enlarged and stiffened. One has but to eat proper food, with no excess of protein, drink enough pure water and attend moderately well to other life and health essentials.

WHAT I KNOW ABOUT RHEUMATISM.

Do you wonder how much I know of what is said above? Well, I know that I suffered greatly from rheumatism for several years. I know that I couldn't lift one arm above my head, that I could make little use of it, at times being very hard to get my clothes on. I know that one night I sat in a chair all night because I couldn't endure the pain of getting into bed. I know that the doctor gave me no encouragement whatever about eventually getting rid of the trouble. I know that wife used to have lumbago seriously, and it was extremely hard, sometimes impossible, for her to bend her knees to get up from the floor, and down. I know how it used to trouble me to think how we were both growing old and getting towards helplessness. And then I know that for some years now

WE HAVE BOTH BEEN ENTIRELY FREE FROM THESE TROUBLES.

And further, I know that once after I got over rheumatism, and thought I knew how and why, in order that I might be absolutely certain of the matter, I purposely went to eating and living in a way to bring it on again. Succeeded nicely. Then changed my ways again and very slowly the rheumatism disappeared. I kept up the experiment of bringing it on until I was so bad I couldn't sit on a chair at table in ordinary way. Daugh-

ter noticed it and I had to try and excuse the matter. Of course, I didn't tell a soul until well again. I couldn't pass a plate at table with left arm, or get in a comfortable position in bed so I could sleep well. Many a night along then I thought what a fool I had been not to let freedom from pain alone. I know all these things, and then that in due time proper living cured me again. And now I intend to stay cured. And further, I know that I could print here scores of letters from readers of "Health Hints" in *The Practical Farmer* who have cured themselves completely of rheumatism by following plan given above and who have so reported to us. And the same applies to all the so-called uric acid troubles. Those unburned cinders from an excess of protein eaten are what doctors call uric acid. If you do not keep putting in, distilled or clean rain water will slowly dissolve them.

ABOUT VEGETABLES.

You will want to know about other vegetables than the potatoes mentioned above, the Irish and the sweet. Well, some of them are fairly good. But some are pretty stringy and coarse, containing little nutriment. It will take considerable strength to work them through the body, about as much as they are worth, often times, so little is gained by eating them, apparently. But there is another side to this matter. If you eat meat the vegetables may act as a dilutant, and then may help about keeping bowels open and free. A certain amount of coarse material is needed for this purpose. I think I get it to better advantage in the wheat and fruits, except what comes from potatoes. I believe potatoes are the best single vegetable we have, and really I haven't much use for others. However, there is no objection to a small amount of some other vegetables, properly balanced with other food, and with food that does not disagree with one. The green leaf products, such as lettuce, are natural food and eaten in moderation are wholesome, unless smothered in unwholesome condiments. If you eat meat let me urge you to pay close atten-

tion to what is stated above and not consume very much. There is little objection to grown people eating a small quantity of good meat with vegetables and grains.

BUT KNOW THAT THE MEAT IS GOOD.

There is much that is dangerous, and it is my duty to tell you the plain truth about it. It is fear of such bad meat, more than of the meat itself when good, that keeps me from eating practically any. It is a well known fact that a large part of the pork that goes to market in this country is made from pigs running with steers and eating from the manure the corn that has passed through the steers. To save the expense of grinding the corn it is fed to the steers whole. They do not chew it all up fine enough to be digested. Some passes through their intestines unchanged, except that it is thoroughly saturated with filthy excrement. This the pigs eat and live on largely. Their blood and flesh must become filled with this filth. As a direct result they often die by the thousands of cholera. Those that manage to pull through and escape the disease, of course, are sold to people to eat. Is it any wonder that we have some awful diseases, like cancer? They do not come except as punishment for serious violations of natural laws. One of these is that food must be reasonably clean and pure, not saturated through and through with filth. Again, how many pens and feeding yards are there on farms where pigs are only fed in a small way, where the animals are not fed in filthy troughs, or on dirty ground, or floors, say nothing of mud and manure?

HOW MANY PIGS ARE FED ONLY CLEAN FOOD IN A CLEANLY WAY?

People who wouldn't think of coming to the table without washing their hands, eat pork from pigs fed in such a way that what they eat must be filthy. Somehow they seem to think, if ever they have thought anything about it, that the poor pig

can live on filthy food and his blood be saturated with it, but when his flesh is neatly dressed the meat is clean and safe to eat. This is simply impossible. And then all sorts of unclean things are fed to pigs sometimes, such as the so-called deaconed calves, which certainly no person would eat directly, and perhaps other dead animals. In slaughter house yards all the offal goes to pigs. Doesn't it give you an appetite for pork? And I can make this even worse, from knowledge. A certain butcher bought a cow of a farmer. When he dressed her he found the meat so affected with tuberculosis that he didn't dare take it to his market, as he told the farmer, so he threw it to the pigs. It seems to me this was simply awful. And human beings eat large quantities of such meat. Now, if you will raise pigs properly, without in-breeding, or breeding from over young parents, keeping them on grass and clover, with clean sleeping pens, feeding clean grains and other foods, such as would not turn your stomach to think of eating, why you might have pork that was as good to eat as any other meat. The danger from pork comes largely at least from what we compel the animals to live on for the sake of saving or making a little more money.

HOW ABOUT CHICKENS AND EGGS?

The poultry are often not treated much better than are pigs. They follow animals and scratch over the droppings to find something to eat. They also are often fed on filthy floors. And the meat scrap you buy for them, well, would you care to eat it yourself? I do not need to mention what is in it. But you eat the eggs and flesh of the poultry, often saturated with filth to the point where disease carries off many of them. And you probably never think that the cause of this is what goes in at the mouth of the birds. And then later what goes into your mouth may bring on what we call "dispensations of Providence." That has a better sound than calling it the direct result of eating filth, of disobeying God's laws. I would not object to eggs, or chicken meat, if they roamed on the grass and were fed only clean food.

But to take my chances on manure-scratching, rotten-meat-fed ones, not very much, thank you. I am having too good a time in this world. And absolutely no pork goes into my mouth, or will until present conditions are greatly changed. All this will shock some of you, I know, but can you put your finger on one single sentence that your own common sense does not tell you is but too true in general?

MUTTON, BEEF, ETC.

Healthy lambs, sheep and cattle should make good meat. But with our present conditions of feeding one cannot always depend on even this. Confinement and over feeding in impure air of stables are making many animals unhealthy. Lungs, liver, etc., become diseased. Considerable meat is rejected by inspectors, but are you positively certain that all of this goes to make commercial fertilizers? And, of course, much escapes inspection that ought to be burned, not fed to pigs or chickens. Often this is peddled out on the sly to people in the poorer parts of large cities. Alas, what won't some men do to make a little more money. Bear with me. I am writing only things I know. At the best meat is a food to be eaten with caution. It is not naturally suitable to our long and slow digestive tract. And then at the moment of death there will always be some poisonous waste scattered through the system of the animal which cannot be gotten out entirely. In this respect meat can never equal the purity of the grains and fruits. However, I think that if the animal was entirely healthy when butchered, blood pure and in normal condition, the digestive juices of the body would be able to take care of the traces of filthy waste in the meat, if we ate it moderately, in connection with other foods that keep contents of bowels moving freely. A little meat from healthy animals can doubtless be eaten quite safely by one wishing to keep perfectly well and live long. But for the most part it will be safer to depend on grains, fruits, vegetables and nuts. There need be no lack of ability to do grand work in the world, although

you may not be able to keep up with the wildest rush, to burn the candle of life quite so fast, without the stimulating diet furnished by meat. Especially do I urge you not to feed much, if any, meat to the children. Let them grow up more naturally. Do not hurry on their mental or sexual powers. Do not stimulate them into precocity. Many a child goes wrong simply because he or she has been fed wrong.

MILK FOR CALVES AND HUMANS.

Instead of storing flesh on her body the dairy cow puts it in milk for her calf. So the two products are quite similar. They both come from the blood of the cow and their purity and healthfulness depend largely on the purity of that blood. A healthy cow, properly fed and watered, having exercise and sunlight enough to keep her well, should give pure milk, suitable for raising a healthy calf. That is what milk was made for. But man has interfered in this natural arrangement, disposes of the calf soon after it is born and takes the milk for his own use. Now, there can be no question but what pure milk is good for calves. But this doesn't prove that it is good for mankind to eat or drink. It is a necessity for infants in cases where the mothers cannot supply them. But it is to be deplored that so much of this kind of baby feeding is done when it is not necessary. The great mortality among infants is caused partly by this makeshift of compelling them to grow up on food naturally designed for a calf. And then the cows from which the milk comes are not always healthy, or kept under proper conditions.

MILK MAY DISAGREE WITH OTHER FOODS.

There are also serious objections to the using of milk as food by grown people. These do not come so much from the milk being animal food, as from the danger of eating it in combination with foods with which it does not agree well. For example,

suppose one drinks milk at the same meal with coarse vegetables. All that goes down is churned up together in the stomach. Now the coarser parts of the vegetables are slow of digestion and remain in the stomach quite a while. But the changes to milk in the stomach are soon made and it should pass on. You can see that it is not possible for nature to separate all that milk from the vegetables, however. Some remains mixed in and soon ferments. Thus trouble may come. One who works outdoors and has strong digestive powers may get along all right in such a case, until he gets along in years at least. But those with weaker digestion may have dull feelings, headaches, bilious troubles, constipation, etc., brought on from eating milk. And in such cases they rarely suspect the cause of their ill feelings. It is true that milk contains much nourishment. It is often a cheap form of food. But many pay dearly in the end for eating it. If milk is to be eaten it goes best with the grains alone. And still there is a serious objection to eating bread and milk. The milk largely takes the place of saliva. The bread is not dissolved in saliva, as it should be for best results. It would be better to eat the bread with butter and drink the milk afterwards in small sips. And again, milk was made for young, growing animals, not for old cows. An elderly person who uses much milk must injure his health somewhat and shorten his life, because he is putting into his body more growing materials than it then needs. It is far better for children to eat it than for old people to do so. You certainly must see this is correct.

CREAM AND BUTTER.

These products of milk I think are not open to any great extent to the objections to milk itself, strange as it may appear to you at first. They practically contain only fat. Of course it is an animal fat, quite similar to the fat of beef. At any rate, fat meat and butter both come from the animals and were made through their blood. But there is not near the chance for danger in eating the fat that there is when lean meat is eaten. And

good dairy and creamery butter is now made in a very cleanly manner. The separator throws off the cream as soon as milk is drawn from cow. Any filthy sediment is left behind. And the butter is usually washed thoroughly now. Thus consumers get a very pure, clean fat. On the other hand, milk stands around and gathers impurities from the air often. And injurious germs multiply with fearful rapidity in warm milk. If babies and grown people could take it right from the cow it would be a far safer food. Yes, I think that first-class butter furnishes us as safe a form of fat to eat as we can get, except in nuts and olives. Perhaps cotton seed oil may be as good as olive; I do not know. And it is fortunate that butter is all right, as wheat is deficient in fat and nice butter goes better on bread than does any other kind of fat, for most people. Clean, fresh cream may be slightly better food than butter, because the fat is in the form of an emulsion, a natural condition, same as we find in nuts. But few can have pure, fresh cream. Butter is the more practical form of fat for people generally.

BUT EAT BUTTER COLD.

Do not fry, or bake it, or any other kind of fat, into potatoes or flour. When you do the starch particles are coated with grease, and perhaps filled with it, so the digestive juices cannot get into them readily, if at all. The result is more or less indigestion. This is one cause of trouble from eating fried potatoes, pie crust, biscuits, cake and puddings. Fats cooked into starch in any form are injurious. Of course they will not kill you outright, but they will prevent your having the most perfect health that is possible for you. Some can eat them more safely than others can, but digestive ills are likely to become evident in due time to all. Perhaps for the most ideal results no concentrated fat like butter should be eaten with starch. Some authorities think so. But if you will remember that butter is concentrated fat, not emulsified naturally, as in nuts, and therefore should be eaten sparingly, I think you can use it safely on cold bread and on potatoes that are a little warm.

Cheese is another product from milk. I do not consider it the best of food, not as good as butter. But if you will remember that it is highly concentrated you may usually eat a little quite safely with bread, potato, etc., when a little extra protein is needed. The main objection to cheese is that the forming of the curd from milk is not done in a natural way, by the human stomach, but it is in a measure predigested by the use of dead calves' stomachs.

UNCOOKED VS. COOKED FOODS.

Much has been written in favor of uncooked foods during the past five years. There isn't any question but what our ancestors way back lived entirely on uncooked foods. Fire was then unknown. Our stomachs were originally designed for raw foods. They have partially gotten used to cooked foods, it is true, but who knows that we are quite as well off as we would be if we ate uncooked foods? You know that years ago there was quite a little stir about cooking food for stock. It seems to have about died down. With all our station experiments, and those made by individual feeders, people should now be about on the right track. But you say cooking and baking make many articles of food more palatable for mankind. True, but are you sure that is a real advantage along the line we are considering, how to keep well and live long? I confess I am not. And still perhaps we may resort to a moderate amount of cooking and not suffer by it. Let us consider the matter carefully. It is claimed that heat is a destructive element, so it will take more food to sustain us if it is cooked than it would if uncooked. As a matter of economy raw food is said to be cheapest and to save very much work in the kitchen. We know that enough heat will totally destroy food. Much food is subjected to heat that turns some of it to charcoal, practically. The life principle in it is changed and partially destroyed. Now, it is well known that digestive disturbances are at the bottom of many of our ills. Just how much of this comes from our present habits of cooking and baking?

UNCOOKED FOODS HELP TO CURE SOME TROUBLES.

Well, in many cases lately indigestion of long standing has been cured partly by eating proper uncooked foods. There is no question about this. And cases of serious constipation that would not yield to other treatment have been cured partly by eating raw, flaked wheat instead of bread, and also by eating uncooked fruits. I use the word "partly" above because I do not believe in any one improvement as a source of cure or prevention to the exclusion of all others. I am satisfied that uncooked foods have some special values and that we may help ourselves some by making at least a partial use of them. In fact, there are many things we now eat raw. We have not got into the habit of cooking everything yet. It will be wise to put some more articles back on the uncooked list. Although raw means uncooked, it is hardly a proper word to use in connection with the golden wheat and luscious fruits cooked by nature in the sunshine. Man better beware how he tries to improve on God's cooking of natural foods. National ills, like constipation and indigestion, come partly in this way, beyond a doubt. So I wouldn't cook any ripe fruits that are fit for eating without. Take them as nature made them, with every life principle undisturbed. The writer has had excellent results for some years from eating raw, flaked wheat instead of bread a part of the time. But good yeast bread, baked about an hour and not eaten until a day or two old, is probably almost as good for those in no way troubled with constipation. According to my best judgment potatoes are a good food that we may safely eat in moderation, but they are not a natural food and should be baked, or boiled with the skins on.

DRIED FRUITS ARE GOOD.

Dried or evaporated fruits are put up in large quantities now, and are reasonable in price. It is a great and growing industry. The writer makes use of them, but they are never cooked.

First, they are washed thoroughly and then soaked in pure water some two days until they take up the water and become almost as plump and fresh as they were before they were dried. Prunes and peaches are especially nice soaked up in this way. We buy them by the box of a wholesale house at very moderate prices, and eat many of them when fresh fruits are not obtainable. In the winter they go nicely with apples. If you should come to our home you might eat a dishful of these prunes and never notice that they were not cooked. And we do not put any sugar on them. But they are delicious soaked in clean soft water until plump. We never buy any canned peaches now, and do not can any to speak of ourselves. We can get fancy dried peaches far cheaper, and I think they are better. They taste more natural. They are almost identically the same as fresh peaches. Let them soak until thoroughly filled with water. That is where most folks fail when they cook dried fruit; they do not soak it enough first. Buy unpeeled dried peaches. They are the best. The hardest, greenest ones are peeled, because they will stand handling better. The soft, fully ripe ones are halved and dried with the skins on. They are cheaper than the peeled, of course, but I wouldn't buy the peeled ones at the same price.

I WANT THE RIPEST AND BEST.

They grow peaches now especially for drying, with skins so thin that one scarcely notices them. When washing them one can rub off the fuzz. The skins of prunes that are soaked should not be swallowed. They are usually tough and indigestible. Don't count this as loss, for they would be practically of no use to you if cooked. You could get them down easier, but they would do you more harm than good, usually. We didn't use to think much of prunes simply because we cooked them almost without soaking and they were not good. Now we eat them by the box, since we learned to soak them up plump. Dates, figs and raisins can be eaten uncooked. But when they get rather dry I think soaking improves them. All these dried fruits can

usually be bought in quantity at prices that make them available as food, when we consider the natural sugar they contain and the excellent effect they have on the digestive tract, say nothing of how good they taste. Just now seeded raisins can be bought for about 8 cents a pound; a fairly cheap article of food, and a luxury, too.

THE FOOD VALUE OF NUTS.

And the same may be said of nuts. They are often cheap enough so that really they are not expensive food. We bought some fine, soft shell California walnuts lately for 15 cents a pound. The same day we paid 37 cents a pound for creamery butter. Now, let us figure on this question a little. Those nut meats cost just 30 cents a pound, as I find by cracking some and weighing them. And they are over 64 per cent. fat. The fat in one pound at the rate of 37 cents a pound would be worth 24 cents. Again, round beefsteak contains just about the same proportion of protein as do these nut meats. So, counting steak at only 12 cents a pound, a pound of nut meats has 12 cents worth of protein, the element we buy the steak to get. Just counting the fat and protein at market price, what is found in our walnut meats, and I am actually ahead 6 cents on each pound. This is correct, as the little fat found in the steak is fully balanced by the carbohydrates in the nuts. And then it takes no fire to cook the nuts, as it would the steak. And the fat in the nuts is in the best form known to mortals.

AND THE NUTS ARE NATURAL, UNCOOKED FOOD.

The above is just to show you that one who can afford to eat fine butter and steak can get as much nutriment often for the same money in nuts, and the best nutriment on earth. Nuts are not a luxury, an extravagance, as some seem to think. I have

spoken of walnuts only. There are other good kinds. Pecans, hickorynuts, and Brazil nuts contain rather less protein, but more fat. Chestnuts are low in food value. Peanuts stand high in protein, about 26 per cent., and have 38 per cent. of fat. They are often a very cheap food to furnish the nutriment they contain. But they are not usually classed with other nuts, you know. They are said to belong to the legume family, along with peas, beans, clover, etc., not to the nut family proper. But they are probably as good an article of food as are beans.

Some think nuts do not agree with them. This usually comes from not realizing their richness and eating too many, or from not chewing them finely. You notice that nuts are a very rich, concentrated food. I do not think of eating more than 10 walnuts in a day, and usually less. If you cannot chew them finely you can grind them in a food cutter. And be sure you get them entirely fine, no little sharp particles in them. Peanut butter is sold in bulk at a price that makes it far cheaper than beef and cow butter, and if not eaten to excess it is probably as wholesome, and perhaps more so.

EATING FOODS IN A NATURAL WAY.

A few special words should be said in regard to dry foods and mushes. The grains really should be eaten in a quite dry condition for best results. They contain much starch, which should be partly digested by being mixed with saliva in the mouth. You cannot eat mushy, cooked cereal food and dissolve it in saliva as it should be if you want the most perfect digestion. Very few do mix it with saliva any to speak of. They put on milk, or cream, and being all fine and wet it slips down readily, and they let it. I have watched people time and again who only moved the jaw once or twice to each spoonful. One certainly gets less good when he eats starchy food this way than he does when he chews, say, dry bread until it is all liquid, and he also gets more or less harm. Any thinker must see that these

are facts. This is why the writer eats wheat in some dry form, not in a mush. There is no deprivation about it, because when one is hungry dry bread chewed long tastes deliciously. And then one gets the good taste many times longer than when he is eating mushy food in the usual way.

Although potato contains much water it is easy to hold it in the mouth and chew it long. Rice cannot well be eaten dry, nor is it easy to hold it in the mouth and chew it as long as one should. Wheat soaked in water until swelled up and soft will answer some purposes of the dry, flaked wheat we buy in paper boxes at a high price, if one has good teeth. But it will hardly be possible to mix it with saliva as thoroughly. I would eat it if suffering from constipation and I could not do better. It is uncooked food, with all its natural, life giving qualities unimpaired. And certainly one can get nutrition in a very cheap form.

THE DANGER IN PREDIGESTED FOODS.

But now let us consider the matter of extreme cooking and baking. There are foods on the market that are called predigested. In a measure they are. That is, heat long continued has done considerable of the work for the digestive tract. At first thought you might say this was an advantage, as there would be so much less for your organs to do. But wait a moment. The law of life is use, and full use, as designed by the Creator. You cannot stop the full use of any organ for considerable time without weakening it. This is absolutely certain. Now, in some cases of sickness it is possible that helping out the digestion a little temporarily may do good. But, mark the words, you will never make a weak digestion strong, or keep a strong one at its best, by babying it. It is entirely contrary to the laws of nature. The digestive tract should not have too much to do, but it should have full, proper use. Now, baking bread an hour is doing a little of the work for the digestive organs. But it isn't so bad as baking it two or three hours, or as shaving grain up into very thin sheets and baking them until they are brown.

ORDINARY BREAD ALL RIGHT.

I think we may get along quite well living partly on bread baked no more than is usually done. But under no circumstances will I eat regularly the over baked or over cooked foods classed under the head of predigested, or partly so. I am not without considerable experience in this line. I bought \$5 worth of this line of goods once to test them and see what they would do for me. Their effect was most carefully studied. And I have personally known people whose digestion had long been ailing, and who received no benefit from long baked foods, to try the uncooked, working into it very gradually. And they got better slowly. I could fill this book with direct testimonials, probably, along the many lines considered, but I think you will rather take my word for it than to have any space filled in that way. You know that I have positively no ax to grind that might lead me to unconsciously shade the truth a little. My most earnest advice to you all is to eat proper food raw, so far as you reasonably can. Then avoid all very long baked or cooked cereals.

EATING WHEN SICK.

When a sick spell comes on stay away from the table entirely. Stop all eating, but drink the usual amount of water, or more. Do not eat anything more whatever until you feel better and are actually hungry. All the strength you have is needed to straighten matters out in your body and food eaten will only make them worse. It will not give you strength, but will use up some of what you have invariably. It is quite a common custom to make something nice to tempt the appetite of an ailing one. Mothers are especially apt to treat their little ones this way. I beg of you not to do it for old or young. But you want to do something for them, of course. So encourage them to drink pure water freely, and keep all food out of sight. Do not say anything about things to eat, unless it is that they are better off without them until they get well. Thousands go to their graves

as a result of being urged and encouraged to eat when sick. Many an ailing person would have recovered in 24 hours, and been saved a long sickness, if they had kept all food out of their mouths and drank water. But no, they try to eat something, and extra nice dishes are fixed up for them in all kindness, and thus their digestive organs are burdened beyond endurance and weeks of serious illness follow. Nature is forced to make them so sick they cannot eat anything before they can get well. Just at this point many a wise doctor has helped his patient by giving them some harmless dose on purpose to make them so sick that they couldn't take food. The skipping of one or two or three meals when you feel out of sorts is the very best thing you can do. Often sickness comes from something wrong with the digestive tract. Do not put any more work onto it until nature can make it all right again. I care little what your trouble may be called, headache, rheumatism, appendicitis, or smallpox; stop eating at once until you become really hungry. Do not be coaxed to eat one mouthful from habit, or to keep up your strength. It will diminish your strength and retard your recovery every single time. Try it faithfully and you will soon be convinced. But do not forget the water, eight or ten glasses a day.

HOW THIS PLAN WORKS.

Years ago Mrs. Terry woke one morning utterly helpless from acute rheumatism. She tried to get up but couldn't move without suffering great pain. What did I do? Well, I didn't care to have her laid up with a long spell of inflammatory rheumatism. So I told her if she would do just as I said she should be out of pain before night and all well in a day or two. She was unusually willing to mind. No wonder, as she was entirely helpless. I got her some of our clean rain water and had her drink a quart within an hour, and then about a glass every two hours. The temperature of the water was about 65 degrees. She was not allowed to eat a particle of food of any kind whatsoever. In a few hours she was quite comfortable, and by being careful

was able to get up. Next day she was almost well. Thus easily was the serious trouble conquered simply by removing the cause of it—food and lack of water. She had over eaten of protein-furnishing foods. Perhaps I better tell you that wife has not had another such attack, and with proper care as to her ways of living she will never have.

MY BEST DIRECTIONS ABOUT WHEN TO EAT AND WHEN NOT TO.

As this chapter is already long enough we will leave the subjects of fruits, spices, chewing, etc., for the next one. I cannot close this chapter on very important subjects better than to give you exceedingly plain directions about when to eat and when to let food alone. Do not eat a particle of food except when your mouth waters at the sight or thought of plain bread two or three days old, with a little butter on it. If you are really hungry and needing food saliva will flow into your mouth freely at the sight of dry bread alone. That is genuine hunger, the best sauce on God's earth, if you want to enjoy perfect health. If you are not that hungry, wait until next meal. And do not ever eat a mouthful between meals. It is a pernicious habit. It disarranges the digestive organs and prevents their needed rest to get ready for next meal. When you are hungry, eat a fairly full meal, then let the stomach get cleaned out and ready and calling for another full meal. No matter if this isn't but once a day. I have known dyspeptics to cure themselves largely by following this plan, with water drinking, chewing, etc., of course.

LEARN TO DISTINGUISH BETWEEN BAD FEELING IN STOMACH AND HUNGER.

It is one of the most difficult things we mortals have to contend with to tell actual hunger from an abnormal, irritated feeling in the stomach. This condition of mucus membrane lining of stomach will seem to crave food so that one just can't keep

from eating without exerting great will power. But eating under these conditions may simply be making bad matters worse. This bad feeling comes, of course, from previous ill treatment of stomach. Thousands of people die suddenly from filling their stomachs with a large quantity of more or less indigestible foods, which they thought they had an appetite for. The doctor may call it heart failure. Surely it was. And that sounds better than the bald truth, after a man has passed away. The friends will like it better. I am trying to teach you plainly what makes the heart fail. I can tell you the truth because you are alive now. If you want to stay so until you are a hundred years old, or more, learn to distinguish between the bad feelings of an irritated, over worked stomach, craving something, it hardly knows what, some relief, and genuine normal hunger. Then have the will power to do what you know is right. I have given you above the best advice along this line that I possibly can. If your mouth waters for dry bread you need it. If you have to make the food tempting in various ways to get up an appetite, you do not need it.

THE NUMBER OF MEALS EATEN PER DAY BY A GREAT PHYSICIAN.

Dr. J. H. Kellogg is one of the leading physicians in America. He adopted the practice of eating but twice a day some 43 years ago, and has followed it since. The first meal with him is little except fruit. It is eaten about 9 A. M. His dinner, a more hearty meal, is taken between 4 and 5 P. M. In regard to the matter he says, "This practice has been found much more satisfactory than the taking of a hearty meal in the midst of the day's activities." I do not know whether or not Dr. Kellogg accepts the idea fully that strength comes from sleep and rest, not from food, but you see there is almost no difference in our practice, or in the results obtained. Each of us is getting the highest possible strength for daily work. When a great man like Dr Kellogg says such words as the above, after 43 years of experience, can you think for a moment that the writer

of this book is on the wrong track? But he started in the matter without knowing of the practice of the doctor.

Good authorities tell us that the practice of eating but twice a day has been followed for ages among the natives of France, Italy, Spain and South American countries. They eat their first meal between 11 and 12, and dinner after the day's work is over. This is Dr. Dewey's plan, you know, and a good one for those who have their meal late and eat heartily. They do not need food again in the early morning. But the plan is not equal by any means to the one followed by Dr. Kellogg, and for the reason he gives. To eat at about 8 or 9 and 4 or 5 is ideal for those who wish to do their very best. The practice of eating but twice a day, I think, was first advocated in this country by Sylvester Graham, some 60 years ago. Dr. Kellogg was influenced by him to try the matter. We occasionally hear from old people who were started right by Mr. Graham, who certainly was a power for good in his day. The plan is a great help in the direction of supplying the body properly with what it needs and no more, so one can have the highest degree possible of strength for business and recreation.

DETAILS ABOUT OLIVE OIL.

This form of fat has been mentioned but briefly. Some will want to know more about it. The writer has eaten gallons of it. He gave up two or three years ago because he had reason to suspect that the best imported oil he could buy was not strictly pure. Dealers said it was, but it did not seem to be. Since the first of this chapter was written he has bought a gallon tin can of the finest California olive oil for \$3. The fat in it costs just about the same as best butter fat does now. The reason for going back to olive oil is that this California oil is guaranteed under our National pure food law. How much that amounts to I do not know. The oil seems all right, same as it used to years ago, before adulteration got so common. I prefer to eat olive oil once a day in place of butter, if certain of its purity.

The best brands of imported oil can be bought in gallon tin cans for \$2.40 to \$2.75. I mention price because olive oil costs very much more when put up in small bottles and sold at retail. In tin the risk of breakage is nothing, and cost of packages less. You can also buy quart and 2-quart cans, but you will have to pay more per quart than when you buy in gallon cans.

HOW TO EAT OLIVE OIL.

Numbers of letters received show that people generally do not know how to take olive oil. If you should put an ounce of butter in your mouth and chew it right down alone it would probably make some disturbance in digestive tract. It might cause sickness in stomach, or it might physic one. The digestive juices cannot handle clear fat in this way to any great extent. But spread the butter thinly on bread and it will be digested. Fat or oil in natural food is emulsified and mixed with other ingredients. You see this in nuts and milk. We should take a hint from this about eating olive oil. Again, few people like the flavor of olive oil. This can easily be remedied and the oil made better for you besides. Suppose you want to take about a tablespoonful. Put it in a cup. Add a teaspoonful of lemon juice, or a little more, if you prefer. Then stir thoroughly until a complete emulsion is formed. At once put in, say, two ounces of dry, uncooked, flaked wheat. Stir until all the wheat is saturated with the lemon juice and oil. Then eat the wheat, chewing it very long. After one gets accustomed to it, that oil will digest as well as butter on bread. Dry graham bread can be crumbled into the oil instead of flaked wheat. The lemon gives the oil a pleasant flavor and is helpful otherwise. No more delicious morsel passes the writer's lips than olive oil eaten in this way.

LEARNING TO LIKE OLIVE OIL.—A GOOD LUBRICANT.

Years ago I brought home a half-pint bottle of olive oil. It was a very fancy bottle; cost 45 cents. We had never tasted

the oil. I took a teaspoonful and put in my mouth. It was as bad a dose as I ever swallowed. I was half sick for hours afterwards. Wife tasted it and quietly remarked: "Good thing you didn't get a larger bottle." I felt so too, but didn't say it. I was sold, seemingly, but had read so much about the value of olive oil that I wasn't going to give up so easily. I tried mixing with lemon juice and taking just the least bit in my mouth at once with bread and butter. Thus a liking for it was cultivated. It was not many weeks before I became very fond of it. Olive oil is often recommended by doctors. If patients take it by the spoonful as medicine they must not expect good results.

One claim made for olive oil is that it is the very best lubricant for the joints known; tends to keep one limber. And then it is recommended for outside application also.

RUBBING IN OLIVE OIL.

Some of the best authorities we have say the outside application is really more important than the eating of it. To do this put a few drops in the palms of hands and rub into the flesh at the joints thoroughly. You will need to put more in hands from time to time. When you are through with the joints rub hands to clean them all over the body. Some will work all over from joints anyway. Do this in a warm room right after taking a cool bath in the morning. Very little oil is required and it should be rubbed in until there is nothing left on surface to injure clothes. Probably the vigorous rubbing with the palms of hands is about as important as the oil itself. But better use a little oil. Capt. Diamond, of California, when 112 years old said: "While I give due credit to my entire method of living, I must say that I owe my long life largely to the use of olive oil. I have used pure olive oil freely in my foods and have rubbed it in my body after bathing, since I was 42 years old." Of course this testimony alone proves nothing. But there is very much more of a similar kind that could be given from others.

The writer would not have given as much space as he has to the matter if not satisfied that a moderate use of olive oil externally and internally was a decidedly good thing.

OLIVE OIL INSTEAD OF COD.

If eaten freely olive oil may be of special value in cases of constipation. And the oil pressed out of beautiful ripe olives is certainly more healthful than any fish oil for consumptives to take. Time and again we have had letters from people who were taking cod liver oil by the spoonful as medicine. About all the good they could get from it was to feel miserably in their stomachs and be physicked more or less. Castor oil would be cheaper for this purpose. If I could get a pure, sweet article of olive oil, such as I am now eating, I certainly would take it in preference to any fish oil on earth. And then I would learn to eat it in a proper way so my digestive tract could handle it and I could get the full value out of it. Then it would help about making me feel splendidly.

CHAPTER V.

FRESH FRUITS, SPICES, CHEWING, CONDENSED SWEETS, TOBACCO.

Fresh fruits and berries contain much water, usually between 80 and 90 per cent. And this is said to be pure water. They do not contain very much food value in the way of protein, fat and carbohydrates. There isn't much of what we call dry matter in them. Therefore they are considered by some as of little account. But they do contain the various mineral salts needed by the body, such as potash, soda, phosphorus, lime, magnesia, iron, etc. Only a very little of these is needed, but the absence of that little may prevent one from having the best of health. Eating fruits is the natural way of putting iron into the blood and any other mineral that may be needed. And some of the fruits contain sugar in the most perfect form for human use. But this is not all. Fruits are especially valuable because of their cleansing and purifying effect in the digestive tract. Being natural food, such as our stomachs were designed to handle, they are exceedingly helpful in this way. Again, they are bulky and enable us to fill our stomachs naturally and feel satisfied without over eating in quantity of nutriment. All of the fresh fruits and berries are good in their seasons. Apples are especially valuable because they can usually be had in abundance and can be kept all winter. They may be baked, or stewed, but are better for us, I think, when uncooked, if ripe and reasonably soft. I do not believe cooking helps the quality of hard, green apples very much, but it insures their being entirely mashed up when they go into the stomach. If you can and will chew the hard apples until they are entirely fine, no little chunks left to cause indigestion, you will probably get as much good from them

as when they are cooked, perhaps more. In all probability our ancestors ate hard, green fruits often, and they agreed with them. But they had good teeth and time to chew.

THE SEEDS OF FRUIT NEED NOT HARM YOU.

Pears, plums, cherries, currants, grapes, melons, and berries all are good. Perhaps you are afraid of the seeds in berries and grapes. They will do you no harm if you live properly, so as to keep bowels open and loose. If one is constipated eating freely of raspberries, especially the black caps, might help to make matters worse. But there is no earthly need of being in this condition, as you will find explained in other parts of the book. As for the seeds lodging and causing appendicitis, as any pain in bowels anywhere near that point has lately been called by operating doctors, there is nothing whatever to fear. Live so as to keep the bowels open; you must for perfect health, and natural foods like berries and grapes will do you all good and no harm. The writer speaks from several years of experience eating them very freely at every meal. And the seeds of grapes are always swallowed. And we eat large quantities of them. Being near a city, we often have strawberries for three months in succession, getting them from the extreme south first. They usually cost no more in May now than home grown berries do in July. And it is the same with peaches. We begin in July with those from Georgia, and keep late Ohio peaches until into November. All this delights us. And we are not extravagant in our eating habits, either. Fruits, grains and nuts cost no more than meats and the usual things that go with them. And then we are not laying up deposits in our bodies to stiffen arteries, muscles and joints and bring on the so-called infirmities of age.

FRUIT MAY TAKE THE PLACE OF WATER.

You may wonder if one can eat enough fruit in summer to furnish all the water the system needs. Yes, for I have done it

for weeks at a time, during the melon season. When I told a doctor he said it was hard on the kidneys. I haven't found it so, doing it year after year. But of course one should not eat more than about what will furnish the amount of water needed. And if it is not a delicious way of drinking, then I don't know anything. But now I have told you what I have done a part of the season only. It should be added that in winter I find that a quart of water drank per day and a quart eaten in fruits is about right for steady. I have worked for years over some of these points to find out what was best, keeping a careful record week after week. I have given up guessing at things, or taking the say so of some writer who simply passes things along. Life and health are worth too much to me to live in a hit or miss way. We have a large refrigerator and ice during hot weather. This enables us to keep ripe fruits and melons quite a while. We begin with watermelons as soon as those from Georgia are real ripe, getting a barrel full at a time from the city. We never get out. Delicious watermelons and peaches, with cantaloupes, pears, etc., mixed in, have furnished me my two quarts of water a day and more. You say perhaps that you cannot afford such things. Well, I do not know that they cost much more, bought in quantity, than some pay for coffee, tea and other drinks. And we are getting all good and no harm from ours. Of course we grow some fruits at home, such as strawberries and apples. We do not have all of them to buy.

THE TROPICAL FRUITS.

Oranges, lemons, pineapples, bananas, etc., are good at times. But I notice that when we have strawberries and peaches that we care little for citrus fruits. Along towards spring when they get sweet we begin to want oranges. And we have them, too. A well-to-do woman said to me once: "Oh my, we can't afford to buy oranges." But I notice that she does afford to have sick spells now and then, with heavy doctor bills to pay. We dodge this entirely. Much rather spend a little money for

oranges than to suffer; make money by doing it, really. But it is a shame to mention money in connection with fruits, as I have done two or three times. They are a necessity for perfect health, and of more importance than any amount of money saved up. I simply want to show that we can eat fruits freely and not be extravagant from a financial point of view, when we take into account all that fruits will do for us. Bananas, which are sold all over our country now, are good food if they are ripe and not wilted; were not picked too green. When they look a bright yellow, and plump and fresh, they are all right. You can tell at a glance if they are right. Always buy them in what are called "hands." That is, have the bunches cut off the stem with as much of it as possible remaining on them. Insist on this. They will ripen better. Then put them in a sunny place, not in a dark room. Now notice: They are not fit to eat when yellow, and especially if there is a trace of green on them. Wait until half or more of the skin is spotted with black. Then they are ripe and at their best. Few people seem to know this. Chew bananas very thoroughly. In substance they are much like the Irish potato, only they have the advantage in being good to eat uncooked.

WHAT TO EAT WHEN SHORT OF FRUITS.

Now, I know that to some such an abundance of fruit as we have is not possible. But many could have more if they would pay a little more attention to raising them. Some kinds of fruits can be raised most everywhere. And all can have a reasonable amount of the common dried fruits. When there is any shortage of fruits you will do well to eat freely of some entire wheat product, not forgetting to drink water freely. Do not depend on white bread in such a case. Eat bread made of whole wheat flour, or, better yet, eat some flaked or soaked wheat, so as to get the entire grain. Wheat contains all the elements needed for the body, and coarse materials to help along the movement of waste in the intestines. I know of no other article

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of food that comes as near taking the place of fruits as does wheat. A college professor made fun in the papers years ago about my eating so much fruit. He showed in his learned way that there was little food value in it. Never mind. Great chemists are not always practical men. The grains are good and so are some other foods. But there are values in good fruits that one cannot quite get from any other food. I have tried to make plain to you what they are.

DO NOT EAT SUGAR ON FRUIT.

Probably most of our readers know why they should be careful along this line. Sugar does not neutralize the acid in fruit. It simply covers it up. So sugar put on fruits may induce you to eat sour acids that your system does not crave. This may result in trouble. You crave the fruit just as it tastes with the acid smothered in sugar, perhaps. Thus the sugar fools your appetite. When you crave fruit that is acid, like sour strawberries, with nothing on them, it is likely that that acid will be good for you. If you didn't crave the acid you wouldn't eat them unsweetened. Everything is natural, don't you see, and you can't foist a sugar-coated pill onto your stomach. For this reason I rarely eat any sugar on fruits. Then there is no chance for trouble. And one learns to enjoy the different natural fruit tastes. This covering fruit with sugar, or cooking it in it, is one reason why some people think that fruit does not agree with them. When I crave an orange without sugar I eat it. When I wouldn't care for one unless it had sugar on it I let it alone. In this case it is flavored sugar, not the acid that I crave, don't you see? And there is no telling how much harm the covered-up acid might do. I see no other way of being sure of eating only such fruit as is good for me. Of course, if one only eats a little sauce-dishful of fruit there is little danger of trouble from using sugar on it. But when fruits are eaten as freely as is advised in this book one better cultivate a taste for them in their natural, unsweetened condition.

PUTTING MUSTARD PLASTER IN THE STOMACH.

Most everyone uses mustard, pepper and other spices, and various condiments and salt on or in their food. Well, what is the effect of these spices? Why, they bite a little, and excite the lining of mouth and stomach, causing an increased and unnatural flow of digestive juices. When one has eaten so much in the past that he is short of appetite he can increase it in this way. At least there is an irritated feeling that passes for appetite. Thus more food is helped down to make matters still worse. The spices are not food to any extent. They are stimulants. They do practically all harm and no good. Didn't you ever have a mustard or horseradish plaster on the outside of your body? Didn't feel very good, did it? Made your comparatively tough skin sore for some time, didn't it? Well, do you imagine you can put a mustard plaster on the very tender lining of your stomach and not irritate it? And how much better is pepper, red, black or white? They do not feed, they irritate. They lead towards digestive troubles invariably. There is one blessed relief. In the United States pepper, mustard, etc., are usually so adulterated that they do not bite as badly as they used to. Now, I am not preaching, dear friends. No, I am simply telling you what I believe in enough to practice. No pepper, mustard, or other spices or condiments go into my mouth. And I fully believe I am receiving a little help in this way about keeping my digestive apparatus in proper condition.

IS SALT A FOOD?

The matter of salt eating may not be so easy for some of you to decide on. We were taught until quite recently that some salt was a necessity with foods strong in potash, like potatoes. Thus there was given us a physiological reason for the use of salt to neutralize another mineral, not as a food directly. Now, some equally good authorities tell us that it is all wrong to eat

any salt. Let us consider the matter. It is well known that the body cannot appropriate directly any mineral put in the stomach. The law of the Creator was that plants should eat minerals, then man eat the plants to get the minerals he needed. Or one can eat the meat of animals that have eaten plants. Thus man was to get the minerals wanted for his body. He can go to the store and buy them and feed them to his crops, but he cannot eat them himself directly and get any good from them. He must get his minerals from the grains, vegetables and fruits, directly or indirectly, in an organized condition. It does not hold to reason that salt was made an exception to this plain rule. If we needed more salt more would have been put into the foods we eat. A little salt is needed in our bodies, yes, certainly. But recent investigators assure us that every particle we eat in the form of a mineral passes out of the body through the skin, kidneys, etc., doing all harm and no good. It seems to be positively proven that not one whit of it is appropriated by the system. You have heard tears spoken of as briny. Well, they are. So is the perspiration and the urine of those who eat salt.

ABOUT SALT INCREASING THE APPETITE.

But someone may ask if salt doesn't increase his appetite. Surely it does. It increases the flow of saliva very noticeably. But in my humble opinion any such unnatural increase of digestive juices and appetite is injurious. It cannot result in good. It leads surely towards over eating, same as does the use of other condiments. We have got in the habit of doing many things that are really not for the best, looking on them as all right. You may ask if wild animals do not crave salt. Certainly, once the habit is formed, same as we do. But that proves nothing. Men often crave tobacco, intoxicating liquor, etc. But does anyone claim that these are foods in any sense, that will lengthen our days and give us more perfect health? You are wondering, doubtless, if we salt our cows. Yes, as it is a legal way of water-

ing the milk. We can crowd cows and steers faster by using salt, beyond question, get more milk, lay on more flesh. But are we desiring to crowd ourselves temporarily for market, or trying to live our full number of days in comfort?

MAKE RADICAL CHANGES SLOWLY.

And still the habits of ages should be changed very cautiously. There are quite a few of our most intelligent, thinking people who eat no salt now. Wu Ting Fang, the noted Chinese Minister, a very highly educated student, has given up salt, he says, being convinced that it is best to do so. Personally, I am at present eating as little as I well can, not half what I used to. We have a little in bread and in butter. I put none on potato, or anything else at the table. To illustrate the effect of salt, I have found that I can eat all I want of raw, flaked wheat and unsalted butter. My appetite does not lead me to over eat. The raw wheat is not salted except by nature. But if I eat our lightly salted bread and salted butter, then I cannot trust my appetite, but must use my judgment, or I will eat too much; have done it time and again. I am still using a very little salt, you see, but also using my judgment daily to see that digestion is not taxed beyond what it should be. I believe I am working in the right direction.

SALT AND CATARRH.

A well known writer claims that salt is the cause of catarrh. She even goes so far as to say that if one will stop using any salt catarrh will disappear in due time. I am inclined to think the effect of salt in this case is mostly indirect. Just as is noted above, salt induces us to over eat, and then the overloading of system with waste from the excess of food eaten causes the catarrh. This catarrh is simply an inflammation to work off

the excess waste which the regular eliminating organs are unable to handle. And still I cannot be sure that salt does not help directly in bringing on this trouble. Between the curbing of my appetite and the cutting down in use of salt, at any rate I have gotten entirely rid of catarrh. This much I know. And I intend to keep free from it entirely.

CHEWING FOOD.

What is the object of chewing? Why, to get the food fine enough so it will not choke us, and saliva enough mixed with it so it will slip down, if it is dry food. Further than this few people think. In this rushing age hurrying the food down in the shortest possible time is the habit of many. Few realize the mistake they are making when they eat this way. They haven't time to live and enjoy life, so they get sick and die long before they should, as a direct result of careless habits. You know, of course, that there are little glands in the mouth from which a fluid called saliva comes when needed. When you see something nice to eat and are hungry, this saliva flows into your mouth freely. You say your mouth waters for the food. This saliva is one of the digestive juices, which aids in the digestion of starchy foods. The truth is that all such foods in particular should be held in the mouth and the jaw worked until the food is reduced to a creamy liquid, by being dissolved in saliva, before being swallowed. Bread and potato eaten this way grow sweeter and sweeter as the starch in them is changed to sugar by the alkali in the saliva. There should be but one rule in this line:

KEEP CHEWING UNTIL ALL THE FOOD IS LIQUID.

Chew until you can no longer keep it from going down. Take small mouthfuls, so there will be plenty of room in your mouth for the accumulation of saliva, and then chew, chew. No rule can be laid down about the number of chews to each

mouthful, as it will vary with different people, and with the same person at different times. You see now one of the advantages of drinking enough water. There will be sufficient to make plenty of saliva so it can flow freely. Without enough water in your system you cannot have plenty of saliva. Chew until the food is fully dissolved in saliva, and meanwhile get several times the good taste from it, the enjoyment, that one does who eats hastily. This is the perfect way to eat. And it is a long step in the direction of preventing all digestive troubles. Be from 40 to 60 minutes eating a moderate meal. Now, I do not mean chew slowly. No, no. When I talk to people sometimes they will begin to chew more slowly. Chew as fast as you can, holding the food in your mouth. Chew several times as much on same food as most people do. That is the idea. You will get your pay at once, soon as the habit is formed, in the longer tasting of the good food and the better taste as it becomes liquid, better and better until at last it will go down.

CHEWING PROTEIN FOODS.

We are taught that in such foods as lean meat, eggs, peas, beans and cheese, the protein is not acted on by the saliva, but by the gastric juice in the stomach. One teacher has gone so far as to say that it made no difference if one did not chew meat at all, only so as to get it down without choking. I do not agree with any such doctrine. A doctor tells me the worst case of colic he ever had, when he thought the man would die before he could get to work, came from half chewed chunks of meat in the stomach. I advise you to chew your protein furnishing foods just as thoroughly as you do any others. I do. The saliva is alkali and the gastric juice acid. We are told that it is an injury, that gastric juice is neutralized by chewing protein much, and sending it into the stomach mixed with saliva. Pshaw! Nature can take care of a system she has arranged. The saliva to practically dissolve all food will never do any harm. Besides, some foods like bread and beans contain considerable of both starch and

protein in them. How on earth can one manage then? How can he chew the starch and not the protein? How can he swallow the protein without chewing it? There is such a thing as science run mad. People are thinking more for themselves nowadays and don't swallow whole any fool doctrine that comes from the big think shops. I say unto you dissolve all your food into liquid form with saliva and you will get your reward in due time, if other things are done as well.

CHEW, CHEW, CHEW.

What is the use of saving a little time, and wasting food, losing three-fourths of the pleasure from eating, and being miserable from indigestion, and cutting some 40 years off your life? Will it pay? Half the food well chewed will nourish you better than will the whole amount hastily swallowed. We used to be told to talk at the table and have a pleasant time. Well, one can have a very pleasant time, should have, but you can't talk much and chew properly. I tell you to chew, chew, chew. There isn't money enough in the world to hire me to go back to the old way of eating. Of what use is money without health? Once having enjoyed this to a high degree I cannot be hired to go backward. You may ask how one can chew mushy foods. He cannot very much, hence I do not eat them. This question and others that may come to your minds you will find discussed in other places.

ABOUT THE TEETH.

You may ask how can you chew if you have poor teeth. This is really a serious matter. You should do something at once if your teeth are not good. A friend once wrote me after having his poor teeth drawn and new ones fitted in, that with his old, poor teeth had gone all his indigestion, neuralgia, etc. You see, with poor teeth he had not been able to chew his food properly. If possible you should do as he did, if your teeth are not

good, and do it now. This is not necessary to cause saliva to flow to mix with food, but is needed to make the food fine enough for best results in the digestive tract. But, if you cannot eat with false teeth, or if for any reason you do not want them, you can get along just as well without. This may seem a little strong to some, but I mean it. I do not mean that you can get along just as easily always; it will be a little more trouble sometimes, but you can have just as good health without any teeth at all. Have all the old snags drawn. It is far better to have none than to have a few scattered ones that do more harm than good.

THEN BUY A FOOD CUTTER.

Use it to run all food through that may need it. You can grind meat and nuts, green corn, etc., just as well, and better, than any teeth can do it. You can grind meat after cooking or before. Ground after cooking it will taste quite natural. Bread after it is some two days old can be eaten without teeth, in the proper way described above. Hold it in the mouth and chew until the saliva dissolves it completely. Of course chewing in this case means move the jaw so as to make the saliva flow freely. Be sure and drink enough water daily to furnish plenty of saliva, and then get hungry before you eat, and you will be all right. Take only a small piece of bread and butter in your mouth at a time. Then work your jaw, helping with your tongue, and you can dissolve the bread perfectly without a tooth in your head. Same of raw, flaked wheat, baked or boiled potato, well cooked rice, cheese, soft ripe fruits, or well soaked dried ones, etc. Apples that are a little too hard to dissolve can be shaved up very thinly, or scraped, or else stewed or baked. Do not eat them raw unless they are made entirely fine, as any little chunks will cause indigestion and the formation of gas in the bowels. These food cutters are in common use now and cost only about a dollar. There are several good kinds. They are entirely practical. For years I could not eat nuts. Then I got a food cutter and for several years have enjoyed them greatly as a part of my regular sup-

per often. They are ground entirely fine. Oh, there is always a way to get around any trouble. Get right at it and do it if there is anything wrong with your teeth. Then get into the habit of chewing as advised above and you will have reason to bless this chapter to the end of your life, which will be put off many years.

CONDENSED SWEETS.—HONEY.

More ought to be said in regard to the various forms of condensed sweets. Pure honey is doubtless the very best sweet, for those who like it, and with whom it agrees. And practically all honey is pure. The bee men as a class are exceedingly careful of their reputation and will do all in their power to keep any rascal from adulterating extracted honey. Of course, you know that there is no such thing as manufactured comb honey. The comb foundation is made by several firms. It is simply a foundation on which the busy bees build the cells and fill them with the sweets they collect. Thus they are saved some work and have more time for honey producing. And to save the bees still more labor it is customary to uncap these little depositories of sweet and use a machine to extract the liquid honey. Then the bees can fill the cells again without stopping to rebuild them. There is a chance, of course, to adulterate this extracted product. But if you buy of reputable firms there is practically almost no chance of your getting anything but pure honey. In these days of adulteration this is a great point. And there is another of considerable importance. Honey is in a natural condition. It has not been cooked or boiled down.

MAPLE SYRUP.

Maple sugar or syrup seems to me the next best form in which to get condensed sweet for eating. In Ohio there is practically no adulteration of this product by the farmers who produce it. I feel perfectly safe in buying what we want to eat of

it. Our laws are quite strict and well enforced, and then farmers generally, like beekeepers, are honest and reliable. So are other people, too. But one rascal in a large city can put up and send out some cheap syrup, merely flavored with maple, perhaps, and scatter carloads all over the country where the taste of the real product is not known. I have seen much of this kind on hotel tables. This one man, you see, can do more adulterating than a thousand farmers could if they wanted to, as he deals in such a large way. Avoid buying any products of this kind. Personally, the writer doesn't particularly like honey, and it does not agree with him. He is very sorry that it is so, and has tried time and again to change all this with the best to be bought. But maple syrup or maple sugar goes right to the spot. It is greatly craved in cold weather. So he eats quite a little of it in the course of a year, buying from producers that he knows, or from reliable dealers. He wishes it was a natural, uncooked sweet, like honey, but it isn't. When well made it is delicious, though.

USE THE PUREST SUGAR.

Of the sugars and common syrups, buy only the purest and best. I could name people who used to buy granulated sugar of a certain big dealer, who claims to sell the best, but whose prices show anyone that he cannot. We have paid a little more for our sugar, but bought it of a firm that never handles any second-class product. When the people referred to saw our sugar they promptly sent for some like it and expressed wonder at the plain difference. The best dealers know the difference, and can sell you the best, if you know what you want and are willing to pay for it. Alas a too common way is to buy an off grade and sell it as the best. The competition and small margin of profit and people hunting around to buy the cheapest, all lead this way. The trouble in granulated sugar comes from the blue material used in bleaching it, as folks want it white. Beware, if there is any tinge of blue in the sugar, or any blue sediment when you dissolve it. If there is it is not the purest and

best. Syrups are often adulterated. They are made very fancy looking, but lack in sweetness and one doesn't feel just certain how much poisonous acid is left in them. So we never buy any of them. We prefer to be as certain as possible about the purity of what we put in our mouths, and absolutely so whenever we can. If all would do this way the rascals would soon be driven out of business. I suppose really that the light brown sugars, the coffee sugars, are the purest sugar on the market. It is not necessary to use a poison to bleach them, so far as I know. The new law is helping along this line, and we hope some time men may be landed in State's prison who adulterate or make less healthful any food product. Meanwhile we better look out for ourselves all we can, and trust the Government and reliable dealers for the rest.

PURE CANDY MAY BE ALL RIGHT.

There has been much improvement in candy I am told, since the new interstate law went into effect. But it should be bought now of dealers who have an unquestionable reputation and who tell you it is pure. And even then avoid any highly colored or very cheap candies. With these precautions a little may be eaten at meal times, same as honey, maple syrup, or common sugar, if you like. I do not believe in ever eating candy, or anything else, between meals. Children often crave candy and other sweets, particularly in cold weather. I can see no harm in their having a little, if it is pure. In fact, I believe an ounce or so may often be quite healthful. After considerable study over the composition of common sugar and the sweets in fruits, and after much reading of authorities, I fail to be able to see any material difference in the two, provided one does not eat too much of the condensed sweet, so as to get an undue proportion of it in his food. Of course there is no better and safer form of sweet for us to eat than what is found in dates, figs, raisins, sweet prunes and other sweet fruits. But now, when one cannot have these, and we will say is eating rather tart apples, and craves a little sugar strongly, I should say eat it. I should do so myself.

We keep some candy in the house in winter. But now be careful that you do not misunderstand and overdo the matter of eating condensed sweets. In the fruits and vegetables generally, getting it in a naturally diluted form, one is not likely to eat too much sugar. When the sweet is in an unnatural condensed form we must use our best judgment as to the amount we can eat to advantage.

THE TOBACCO HABIT.

Just think of putting tobacco next to honey and candy. Well, I wish we didn't have to put it anywhere. But it seems to fit in this chapter with chewing as well as any place I can think of. I do wish I could put tobacco in some out-of-the-way place where no young reader of this book, who has a clean mouth and sweet smelling breath now, could ever find it. Just a few kindly words of advice, boys and young men. Chewing and smoking are filthy habits, are they not? Yes, you must admit it when you sit down and think quietly. You wouldn't like to see your sister or sweetheart doing it, now would you? And they are costly habits, if you smoke good cigars. And for the sake of your friends don't smoke poor ones, or cheap tobacco in an old pipe. John Gould, the well known writer and lecturer, stopped using tobacco when he was married and has put the money he used to burn up into good books each year, and now he has one of the finest private libraries in Ohio. Save your money to get a start in life, my young friends. Do not worse than waste it in such a way as to taint your body and clothes by burning it, or by spitting out constantly the poison you dare not swallow. All authorities agree that the intellect of the growing boy is weakened by the use of tobacco. In some schools it is not allowed. It should be against the law to sell it to any minor. Your chance to rise in the world is lowered right within your own brain by smoking or chewing. And some of the best firms in the country now, like the A. I. Root Co., Medina, Ohio, do not hire users of tobacco. The writer has never hired a boy or man to work steadily for him who used tobacco in any form. And,

of course, he has never used it himself. The young man who is led by his judgment to let it alone entirely and who follows other good practices advised in this book, will thank us later, when he has made a good mark in the world, and is enjoying perfect health in his old age, with no bad habits to pull him down and shorten his life. There is one terrible danger connected with the use of tobacco. It quite often leads to a desire for something stronger and thus a taste for liquor is acquired.

A TRUE STORY FOR OLDER MEN.

To grown men who are using tobacco duty calls me to say that you can hardly reach the best that is possible for you ahead, in the line of this book, without casting the old habit aside, with all others that are keeping you from being quite at your very best. I do most earnestly hope that you will. You cannot put any poison into your blood steadily day after day without paying some penalty in due time. In fact you are paying as you go along, to some extent. The finest enjoyment from the taste of good food cannot be yours, nor can you have the clearest possible head for business. Allow me to tell you of a little incident that I once was close to, and may every brother who reads this do likewise. A good lady was sitting by the side of a certain judge in the cars one day. He was a fine man, indeed, but he had a great quid of tobacco in his mouth, as usual. I knew both parties well and was sitting behind them. The woman was quietly talking to the judge about his tobacco habit. He frankly acknowledged that all she said against it was but too true; but said he was so addicted to the habit that he simply could not break it off, hard as he might try. It got the better of him again. At last this grand woman remarked, in her quiet, charming way: "Judge, if I had only that one habit standing in the way of my being a perfect gentleman, seems to me I would find a way to get rid of it." The effect of these words was electrical. Instantly the judge raised the window and cast out his tobacco, saying: "Good-bye forever."

CHAPTER VI.

EXERCISE. ALL MUSCLES SHOULD BE USED SOME DAILY.

A good writer said that work wasn't exercise; play was exercise. Well, play, recreation, freedom from all cares, is a good thing. But most people have to work. And it is well that they do. I thank God for work. Useful and regular employment adds to the pleasure of life. The idle rich are not the happiest people in the world. Too much money often proves a curse. It may be as bad for the individual as is poverty. No greater words were ever written than "Give me neither poverty nor riches." Income producing work to do, enough money to live comfortably, so there need be no real worry about financial matters, is the life the writer wishes each one of you to have, not ability to pile up vast sums of money. Most people must work, I say. And hence I think the writer mentioned above lost a great opportunity to do good, when he failed to tell people how to work so as to get quite perfect exercise. This chapter will be partly along that line. We all need exercise, without any exceptions. All the muscles of the body should be used some daily. The law of perfect life is use. We need to use our muscles to work off some of the old tissue and draw new to take its place. We were made for such constant employment. We cannot enjoy complete health without a certain amount of it. And no muscle of importance

should be neglected. Better to use every single one daily. When one is not used it becomes starved for want of new, fresh materials drawn in by the working out of the old.

HOW TO MAKE PLAY OF WORK.

Work should not be simple drudgery, as it often is. We should make play of it. And we can to a very great extent. How? Why, by becoming deeply interested in it. By studying how to improve our business in every possible way. By doing the very best we can when we work for others, not how little we can do and hold our jobs. The farmer, the mechanic, the merchant, the housewife, the laborer; all should take so much interest in doing their regular work well as to make it like play to them. They should watch each day for opportunities to do their work a little more perfectly in some way, to accomplish as much with less expenditure of strength. The writer has dug many rods of ditches for tile drains. He took great pleasure in trying to see how narrow he could make the ditches, so he would have less earth to throw out and put back in. And he enjoyed greatly seeing the water drawn out of the land and compelled to flow away where it could do no harm. It was conquering, the very spirit of war, and still doing all good and no one any harm. The work was made pleasant by trying to do it so thoroughly well that never a drain should make any trouble in the future. And not one ever has. Thus what most people might consider very hard work became an actual pleasure to him, as much as any play. Thus he has played at work all along the line with a will, because he enjoyed seeing the land, the crops, the income growing better and better, and the prospect of a new and comfortable home coming closer and closer. After these were secured much enjoyment came from laying up a little for a rainy day. No play has ever been invented for men in which he could have become more interested or got any better exercise for body or mind. No matter what your work may be, read and think and enjoy it by climbing up as high as you can, then no gymnasium in existence could give you as good exercise.

DON'T WORK TOO HARD.

Although work can be made most excellent exercise, let me caution you not to overdo the matter. There is such a thing as taking too much exercise. And so there is of working too hard. It doesn't pay to do this. You will lose interest in work, it may become drudgery, if you have to overdo month after month, whether you are a man or a woman. Then you will not accomplish as much in the long run. No more incorrect statement was ever made than the common one that hard work never hurts anyone. It has injured the health and shortened the lives of many thousands of people. It has exhausted their ambition, deadened their thinking powers, injured their digestion, and made life a treadmill which they didn't care very much how soon they got out of. Ex-Senator Greely of South Dakota, tells of visiting a poor woman who was completely tied up by hard work. He complimented her for having such a fine home and many possessions. "Yes," she said, "I have all things that heart could wish for, except time to enjoy them." Our good friend tells of another woman who left this world some 30 years sooner than she ought to, who had always been burdened with never-ending work. He says the following ought to have been put on her tombstone, after the date of her death: "Stopped doing chores and went up to God."

LAY UP SOME MONEY WHEN YOU CAN.

As hinted before, a reasonable amount of money or property, so you may not need to worry about the future as you grow older, will help you about keeping well and living long. It certainly will. Worry is a bad thing. It, too, will shorten life, same as will overwork. So when you are making play of your work, are so interested in it that you compel success to come your way, lay up a moderate amount, as soon as you are out of debt, during the good years as you go along. Put it in the safest savings banks, or equally safe bonds, or mortgages on good

property. Don't risk it for big interest, but put it where it is safe first of all. When a blue feeling comes over you just think of that safe nest egg that you have, and of the thousands who haven't succeeded as well as you have. Pat yourself on the back a little in this way and see how quickly the discouraged feeling will fly away. But better see to your diet, etc., a little at same time. How do I know all this? Why, I have been there, time and again. If I hadn't, what would my preaching amount to? This reminds: I urged a minister once to preach against intemperance in eating, as well as in liquor drinking. He did, and made it pretty strong, too. I was surprised at the advanced stand he took. And then he told one of his church members during the week that he didn't pretend to practice nearly all that he preached. I do not like that kind of preaching, do you?

HOUSE WORK GIVES EXCELLENT EXERCISE.

I believe that, as a rule, the farmer, the mechanic, the housewife, etc., can get all the exercise needed while attending to their usual work. There will hardly be a muscle in their bodies that is not used daily. There has been much written about physical culture that no thinking man can endorse. It is good in its place, but many people have no need of it. Housework may be so managed as to give one excellent exercise. Of course, one should look to it first that the air in the home is practically free from dust and gas and naturally humid. Sunlight should be admitted freely. And the clothes of the women and girls should be entirely loose. All this we have brought out fully in other chapters. With all such things right the women may get as good exercise at their work as their husbands get out of doors. Let us talk the matter over for a short time. A woman doing housework walks around the house for hours each day. This is good exercise. And then she is reaching up, and down, forward and sideways, as she stands on her feet. Hardly a muscle in her body can escape being used. Notice the splendid general exercise she gets when making a bed. No system of physical culture exercises

can possibly beat it. Now maybe you think you have caught me preaching what I do not know. But wait a moment. I have made up the beds sometimes for our roomers so wife could go visiting for a week.

HOW OLD MEN MAY SUFFER FOR WANT OF EXERCISE.

Let me whisper to you a moment. There are elderly men, sitting around doing practically nothing, giving up to their troubles, whose muscles are actually starving and stiffening for want of use. Their wives often are overworked waiting on them and doing housework generally. These poor men think they are sick, so they can't work. No medicine made will do them any permanent good. But if they will simply do half the housework, eat half what they do now and drink twice as much pure water, they can gain in health in a short time. And their poor wives will not need Greely's epitaph on their monuments quite so soon—"Stopped doing chores and went up to God."

How do I know all this? Why, bless you, I have seen the men and heard their tales of woe. When I have looked at their poor wives I have felt that I would like to print their names. There is no joke about this. A man who is sitting around and dying by inches for want of exercise, who doesn't want to go out in the cold in winter, will be greatly the gainer if he will do part of his wife's work. And often it will be a decided help to the wife.

A VARIETY OF EXERCISE IS BEST.

I have heard women complain about having to go up and down stairs so much. And still it is splendid exercise and all right, unless one has to overdo. And then I have heard them say they did not want any cupboards down below tables and sinks, as it was too hard work to bend down to get things out and to return them. This is a mistake. That bending down is

healthful exercise. It brings into use some muscles that would be neglected if you kept about straight up all the time. We have low-down cupboards all around wherever there is a chance, as well as some that are high up. They all help about making our home a first-class gymnasium. Better by far to use your muscles in this way for a useful purpose, than to practice monotonous physical culture exercises to obtain same results. We feel that all these various household exercises help about keeping wife in perfect health; in fact, we know they are doing it. We are abundantly able to keep a hired girl, or two of them, but then wife would have to spend part of her time on physical culture exercise, or soon be a bundle of ills. Now she is remarkably well.

WALKING GOOD EXERCISE FOR BRAIN WORKERS.

Some of our readers do not have much physical work to do. Theirs is more work of the head. All very well. Just as important as muscular work. But every brain worker needs to use his muscles generally quite a little daily, or he cannot do his best with his head. Nor can he keep in health and hold out during a long life. Such matters are just as certain as that two and two make four. Of all the exercise within the reach of those following sedentary occupations, there is nothing better, as far as it goes, than plain walking, if properly done. It is natural exercise. It is taken out in the fresh air, and should be in the sunshine as much as possible. In hot weather it may be before or after the heat of mid-day. Do not do this walking as you would take medicine, as something you must do, but wish you didn't have to. Such walking will never do you the maximum of good.

HOW TO WALK FOR BEST RESULTS.

First have broad shoes that are entirely comfortable for your feet. Let your clothes be loose and none too many on.

Then learn to love the full breaths of fresh air you can get, and the beauties of nature you can see all around you. Leave all thoughts of business and all cares and worries entirely at home. And don't, please don't, stand up stiff and straight, with all muscles rigid, and force your feet ahead, first one then the other. Relax every muscle that you can in your body and arms, just using those that you have to in your legs. Take an easy attitude. Let your arms swing naturally, the muscles all limber. Lean upper part of body forward slightly, so each movement of foot ahead may be in a measure a sort of brace to keep you from falling forward. This is rather an exaggerated description of a perfect movement, but I think it will give you the idea. An easy, swinging, natural, graceful gait can be formed that will give you splendid exercise and not tire you much. Do not try to walk too fast, or too long. Do not ever get so tired that you will not feel rested after sitting down for a few minutes. It is well to have some place in mind that you are going to when you start out, not strolling aimlessly. If you can walk a mile or two to your office, or to the post office, it will be well.

LET THE CHILDREN WALK MUCH.

It is a grand thing for them to have to walk a mile or two to school. The centralizing of schools and drawing of the little folks in covered rigs from their homes and back, as is now being done in some places, means less sound constitutions, growing worse in generations to come. So does depending on street cars in the cities too much, instead of on your own legs. You cannot long violate nature's laws without drawing a penalty on yourself, or your descendants. Walk, walk daily, for health and longer and longer life, no matter what the weather is, if you have good sidewalks, or roads. Don't stop for rain, or snow, or blow. You can keep dry, and cold is invigorating. Many sedentary people need a little more toughening, a little more contact with mother nature, even when she spansks, and less of babying and hothouse culture. For several years the writer when attending

Institutes winters, walked about six miles every day. This in Minnesota, Wisconsin and Maine, the same as in Delaware, Ohio and Missouri. With thick-soled shoes, warm mittens, and ears covered, he would walk off in the teeth of the worst storm they could show up in the cold North, except dust storm in the Northwest. And this without an overcoat, unless it was 20 or 30 degrees below zero. He greatly enjoyed his walks still mornings, no matter how cold. He never would have worked in Minnesota as many winters as he did but for the splendid roads, usually free from snow, and their beautiful sunshine.

When I came home to stay most of the time, and do much more office work, it was a question how I could get along without the walking. At our place there are many days in winter when walking is not practical. For six winters now I have tried living more or less without it. With the pure air in our home and about three hours of work daily, tending fires and doing other various jobs, I have got along well. If I lived in the city, or where the roads were dry and smooth, I should continue to walk some daily. Now I can only do it occasionally.

PHYSICAL CULTURE.

Physical culture is largely an aristocratic form of work. The wealthy woman who works away at this could do better, probably, by doing her own home work, if she took an interest in it. Her husband might do as well tending the fires and sawing wood. But such people don't have to do common work, so they get dumb bells, clubs and various contrivances and go through numerous monkey motions to get the same effect that common, every-day, useful work would bring. And they have no idea they are working, but they are, just that and nothing more as a rule. And it is work that brings in no money. It is like throwing stones from one pile to another, back and forth. In general the above is entirely true. But this exception should be made: One who practices a really perfect system of physical culture, so as to use every muscle in body just enough and no

more for best results, can keep his body in better trim than he can by ordinary work. This when he has plenty of brain work, or some very light employment to occupy his time fully.

PHYSICAL CULTURE CAN BE MADE A LITTLE MORE PERFECT THAN
IS COMMON WORK.

But it very rarely is so. And then it becomes monotonous to most people to go through such exercises every day. It soon gets to be an old story and is neglected. In this respect it falls short of useful work that one is interested in and which is calling to him daily. It lacks most of the incentive of accomplishing something which attends useful labor. If, as you are situated, you think best to depend partly on physical culture exercises, then be sure you make use of the very best ones. Some systems are more for developing athletes than for keeping head workers well. And I would keep the idea always in your mind that you are practicing these exercises for ideal results, better than can be obtained in any other form of work. And then make these results come. You can. The writer is not without considerable experience in this line. When away at Institutes winters physical culture exercises were of great value to him, in connection with daily walks. There was no work that he could do, and still he could not keep well without exercise. It is in such cases that physical culture can be made of much real value, if one has sufficient determination and will power.

A FEW SIMPLE EXERCISES FOR HANDS, FEET AND LEGS.

☞ Close the fingers and thumb of one hand just as tightly as you possibly can. Then throw them wide open, and as far back as you can, and with fingers wide apart. Repeat several times. Then do the same with other hand. It will rouse up the circulation wonderfully and help to keep hands in good condition.

Next, clasp fingers tightly over the top of head and swell up

the muscles of upper arm all you can. Hold for three or four seconds, then let the blood flow out for a moment. Repeat several times. With feet and legs bare stand on toes of one foot and hop up and down at an easy gait. Then do the same on toes of the other foot. Again, jump up and down on toes from one foot to the other, about as you would in jumping the rope, or trotting and not going ahead any. This is an excellent exercise, but so are all the others that I give you. Stand on toes and slowly let your body down on to heels, and slowly rise up again. No better exercises can be found for feet and legs. They will bring fresh blood there flying. They will be found especially helpful if you are troubled with cold feet.

SOME GENERAL EXERCISES.

Stand on toes of both feet and reach up with fingers of both hands just as high as you possibly can. Then stand on left toes and reach up with right fingers. Then stand on right toes and reach up with left fingers. Make a mark and try to gain on it. Such stretching exercises are valuable.

Stand, with arms stretched out straight and level in front of you, hands together. Then throw them back strongly, keeping them on line of shoulders.

Stand and strike out from the shoulders vigorously, with fist closed, first one hand, then the other, alternately.

Stand and lean forward as far as you can, then backward, body bending in waist, hips remaining about stationary. Same position and bend sideways, first one way then the other, always as far as you can. Then with hips still stationary, swing head and shoulders around in as large a circle as you can to the left for a time. Then to the right.

Stand, with arms straight up above head, slowly bend forward and touch floor, or come as near to it as you can, in front of your toes. Do not bend the knees any. Then come back to first position.

Stand and kick as high as you can, first one foot then the

other. Have something soft hanging down that you can hit, raising it higher as you gain ability in this line. Then throw right leg out sideways as far as you can a few times; then do same with left one.

Lie flat on floor with toes under something, hands by hips, and slowly raise body to sitting position without helping with hands, then back down.

Lie flat on back and raise centre of body, weight resting on heels and head and shoulders. You can study out other movements, if you need them.

It is well to exercise muscles of neck some. Stand and bend head forward, then backward, far as you can. Then sideways, first one way then the other. Then turn head one way as far as you can and look behind you; then the other way. Then swing head around in a circle one way, then the opposite way, shoulders remaining about stationary.

GENERAL DIRECTIONS.

For best results all exercises should be taken in fresh air and without any clothes on. I cannot take space to argue these matters, but I tell you briefly some things that I know. In such exercises as you can, always stand in front of a large mirror and watch the muscles. By keeping your mind on what you are doing, and what you are doing it for, you can send more blood to the muscles in use and do them more good. This is a proven fact beyond any question. Have room warm enough so you are entirely comfortable and don't fail to have the air pure. Enjoy your exercises. Take them in some regular order. Better to do the lighter ones first, then finish with the heaviest ones, like the rope jumping and striking out from the shoulder. Repeat each movement a few times, but do not overdo at first. In a few weeks you can do much more to your advantage than you can at first. Rest a moment between each exercise, or whenever you feel tired. You will gain nothing by being too strenuous. I have overdone the matter time and again, doing me more harm

than good, before I learned how. Make it a pleasure trip, all around. When you get up in the morning is the best time. Then follow exercises with cool bath and rubbing. When away from home steadily I spent from 90 to 120 minutes taking exercises and bathing each morning. One can get considerable good exercise when bathing and wiping by bending and turning and twisting the body in every possible way.

CHAPTER VII.

BATHING IN WATER, LIGHT AND AIR.

Water on the outside of body is needed as well as inside of it. In a book which I have a noted doctor advises people to bathe for decency's sake, but says they can be just as healthy without any of it. Other writers say bathe in hot water once or twice a week and utterly condemn the cold bath. People generally use soap on their bodies, and still some of the greatest physicians of the day never use any when bathing. Among all this difference of opinion there must be truth. Let us seek for it. And we shall give you no words of idle theory, or of mere sensation, or what may please the majority of readers best, because it agrees with what they are doing. No, we aim to give you just simple facts, as the writer has found them by long experience.

Naturally, the skin was intended to be exposed to air and sunshine. Thus it kept in a healthy condition, supposing the individual to live rightly in other respects. You know the skin is one of the four outlets for waste from the body. It must be in a vigorous condition if you want it to be able to do its work properly, so you can enjoy the best of health. As a rule the skin is shut up from air and light, under clothes, and often too tight ones. Very little air reaches it, and less light. These are unnatural conditions. Thus the skin becomes more or less inactive and unable to do its work well. This trouble comes from our civilized ways. In warm climates where no clothes are worn, people may have perfectly healthy skins.

WE MUST WEAR CLOTHES.

But let us do our best under our conditions. I assure you that common ways can be much improved on. Although the skin may have a somewhat unnatural appearance, we can still keep it quite active and vigorous. Before you get this book read through you will find exactly how to do it. With one outlet for waste sadly inactive, as it often is, almost corpse-like, one must not expect ideal health. And more than their share of the work is thrown on the kidneys. In spite of all that has been said against it, the cold bath may be so taken as to be a decided help about keeping the surface of body in good condition. Kindly drop all prejudice and follow me carefully and I will show you that I know what I am saying. Many shrink at the very mention of a cold bath, and no wonder. Their skin has been babied until it has almost no life left in it. But these very persons are the ones most in need of what a properly taken cold bath will do for them. A man of about my age said to me lately: "It may do for you, but if I wanted to kill myself I might take a cold bath." I replied most earnestly: "If you do not pay attention to such health matters as this I shall certainly come to your funeral, while yet in robust health myself, unless I meet with some accident."

HOW TO TAKE A COLD BATH PROPERLY.

I will now go into full details after many years of actual daily experience. I will steer you entirely clear of some blunders that I have made. You must enjoy the bath thoroughly every minute. You must feel splendidly when you get through. All this will make you look forward to it as a real treat; I do. I would sooner go without a meal than to miss my morning bath. Several times when getting into a large city on a sleeper in the morning, and washing my face and hands there, I have paid as high as a dollar for a room to take my bath in, although I was going out in a few hours on another road. Years ago I used to

fill bath tub partly full of cold water and jump in and roll over, bathing quickly, and then get out and rub hard until dry and warm. I would be nearly as red as a beet all over when I came out of the tub. The blood was drawn quickly to surface of body all over at once and the multitude of little capillaries were thus cleaned out. I have taken many a cold shower bath also. When traveling I have sometimes had to bathe in a cold room. But I prefer a warm one. Extremes are not advisable. One can be too strenuous. It is not because I am older that I say this, for I can stand as much in this line as ever. But I do not think it advisable, for young or old. I have bathed in ice water and all that; had to, or go without my bath. But gradually I have come to the conclusion that there is a golden mean that is better. We have a bath room but I do not use it now. My plan is exceedingly simple and within the reach of nearly every reader. And I can study out no better way. I use a room winter mornings where temperature is about 65.

A LARGE WOODEN WASH TUB

With a pail of water in it is used. I draw the water fresh from the well, so it is always about the same temperature. I work around half an hour or so fixing fires and doing other chores before bathing so as to get blood to circulating freely. This is important. Heart should be tamed down to about normal, however, before one gets in the water. I wear a long flannel bath robe while doing these chores. When ready for bath I rub myself all over for about five minutes with flesh brushes; a pair to use on body generally something like those used for horses, then a long one for the back. Next, I bend over the tub and bathe head freely with a large sponge. The head should always be wet first. This draws the blood to the scalp with a rush and is good for the hair. Next, I sit down in tub, legs outside, and spend about one minute taking a sitz bath, using a large sponge about the hips. Thus I can take a good bath with one pail of water; saves filling tub half full. This sitz bath is specially

important. Then I spring out, put one foot in tub and bathe that and leg; then the other one, after taking the first one out; next the arms, one at a time, leaning over tub. Lastly I sit down in tub again and quickly bathe body, running water down back by squeezing out the large sponge several times. But all this is done on the jump. Then without walking around any I wipe off with sponge and then with towel, just as fast as I can work. It is an excellent way of filling lungs to their utmost. The air in room should be entirely pure. The instant I am through wiping I slip on the flannel bath robe before going to my room to dress. Taking a bath in this way, the blood is drawn vigorously to one part of body at a time. It is not so strenuous as is getting into water all over at once, and I believe it is a safer, better way. At any rate the results seem to be perfect.

A VERY IMPORTANT POINT.

Now, I am entirely warm when I begin to wipe, and often feel as though I would like to take bath right over again. But on no account should this ever be done. And one should hustle when wiping, always. When the skin is half wiped the evaporation from it is greater than when it is all wet, and this will quickly chill one. This is right where much of the danger comes in from taking a cold bath carelessly. Get into warm clothes or bath robe as quickly as possible after wiping. By the way, there can be no better plan of treatment where one has trouble with cold feet, as far as bathing is concerned. To bathe them in hot water is all wrong. Draw the blood into them with cold water and improve the circulation; toughen, not baby them. Same of the whole body. But do all this in a way to heartily enjoy it. No man can have suffered more than I have with cold feet and legs. Now, I never think of having a particle of trouble. Of course, this bathing in cold water is not all, but it is a great help. Better take your bath in a warm room at first, anyway. And make water just a little colder day by day, so as to gradually get used to the change. In due time you will learn

what a wonderful invigorator the cold bath is when properly taken. If you feel chilly after dressing, the bath will do you more harm than good. You should feel just splendidly. You can work your way up to this, no matter how delicate you are now. But go carefully and slowly. I have actually had hundreds of letters from enthusiastic friends who have done this and who express in strong language the pleasure and help it is to them. It stimulates and wakens up the body wonderfully, with no harmful reaction. It helps to make one able to go through almost any exposure without harm.

BATHING IN WARM WATER.

Do I ever bathe in hot water, you may ask. No. Water warmer than the body is always weakening. You may depend on this. Cool bathing is strengthening. I have not used any hot water for several years, and never shall again. However, there is a way that one can do this with fair results. Bathe in the warm water and then dash cold water all over the body before wiping. Some do so. But what is the use? I can and do keep my body clean in winter with my daily cold bath. During the summer, if dirty at night from sweating, I should bathe again, of course, using water then at a temperature of, say, 75 degrees. It is hardly best to take a bath at night in a colder water than this, as the vitality is then at a low ebb. But water at about this temperature will feel comfortable and rest one, without weakening. And then it is nice to be clean over night. Allow me to call particular attention to this matter of bathing summer nights, after the day's work is done, in water about as warm as it would be in a pond. After the bath slip on clean clothes for the evening and night. You will sleep better. Have it so you can do this bathing handily. A bath room is nice, but not necessary. A wash tub in any room or shed will do. Water drawn in the morning will usually be warm enough by night. No matter how dirty you have got while at work you can be clean and comfortable in the evening. And your wife will appreciate it.

You will not soil the bed clothes nearly as much. My way was to take my bath before eating supper. It need not take more than ten minutes. The clean shirt you slip on can be worn several nights.

USE OF SOAP WHEN BATHING.

For several years I have not used any soap on my person except to remove dirt from soiled hands and once in a while from face. And then only the purest of soap is used. Soap can only do harm on the body, except when needed to remove dirt that will not come off without it, and the cheaper the quality of the soap the more harm it will do. Ordinarily there is nothing on a healthy body that water will not wash off sufficiently. You cannot wash out the pores, nor should you. Nature will send out onto the surface all that you ought to remove. And cold water will take it off, used in connection with the brushing mentioned, and leave the skin soft and healthy. Soap tends to wash off the natural oils and leave the skin harsh. God furnishes us water to bathe in; man makes soap, and he makes some that is dangerously bad. You would probably be surprised to see how much dirt is taken off by my cold bath. The water shows quite a little dirty shade. If it stands long there is some sediment. This is better in the water than on my skin, or rubbed off on my clothes. It is nice to be clean. And you know that when epidemics break out they are worst in parts of the city where people are not cleanly in their habits.

THE GREATEST VALUE OF COLD BATH.

While a cold morning bath may help to keep one clean, after all a large part of the object is to rouse up the circulation, bring the blood rushing into every little capillary, thus helping to make the skin healthy and vigorous, quite able to do its regular work, at least as well as is possible under our civilized conditions.

When away from home I have often had to bathe with a sponge and a wash bowl of water. By wetting a towel to draw over my back I used to do quite well in this way. I carried with me for many years a piece of pure rubber cloth, 5 feet square, to spread on the floor. On this I placed the wash bowl. I could splash around considerable then. I always carried a sponge, rolled up in a towel when wet. But give me a wash tub where water on the floor will do no harm. It beats water in a bowl. And really I prefer it to bath tub or shower bath. During the season of the year when the sun rises ahead of you, you will find it a decided advantage to take your bath right in the sunshine, if you can manage to. It is a little helpful touch of nature. The body needs light and air as well as water. More will be said on this point under the head of clothing.

A few words of repeated caution in closing this subject: Never take a cold bath as you would medicine. Learn to enjoy it as a real luxury, or let it alone. Take all the air bath you please before bathing, but just as little as possible after you wipe yourself. Every moment of exposure of damp body after bathing is reducing the good effects in the end, although you may not notice it at the moment. Hustle to get into warm clothes, or a flannel robe if you have to go to another room to dress, while you are warm from the reaction, before there is the slightest chilly feeling.

THE COLD BATH IN SUMMER.

Perhaps I better say a few words on this point. If you read this during the hot weather you will find it an excellent time to begin taking cold baths right then. And as cool weather comes on you will be so used to it that all will go well in a moderately warm room. But if it is winter when you think about beginning I would do so just the same. Don't wait; you are losing something. But be careful and change very slowly from water as warm as you have been accustomed to using until you can take pleasure bathing in it when as cold as 50 degrees. Now, in sum-

mer I greatly prefer to take my bath right out in the open air in some secluded place, feet on mother earth, and if the sun can shine on me, all the better. The temperature of air makes little difference then to me, unless the wind blows. One should always avoid bathing in the wind. I have often taken my bath outdoors still mornings when temperature was not far above freezing, and enjoyed it. If you have no handy place outside, then be sure in summer to have windows wide open in room where you are bathing, so the air you breathe will be entirely fresh. This is an important point. But avoid all draughts when wet.

BATHING IN LIGHT.

The more you can expose the body to light the better, so long as you are comfortably warm and do not shock other people's ideas of decency. It is quite practical to do more in this line than is usually done. And it will always help some about keeping one's self well. Living rooms are often kept too dark. Sometimes there are not enough windows, or they are not as large as they should be. Often but little light can get in through the windows that are present. There may be blinds, shades and curtains to shut out the life giving sunlight. In homes so dark that flowers would fade, except right on the window sill, wives and children often pass the time and wonder that they have ill health. Let in the light, the more the better, except perhaps in the middle of day in hot weather. The writer planned and built 26 years ago the home he now occupies. Instead of a square, compact house which could be built for much less money, he arranged for rooms to project all around, so more light and sunshine could be let into the home. The front room, above and below, projects out its full size, 16x18 feet, so there might be windows on three sides; and there are. In the room above, where he is now writing, there are two south windows, each $2\frac{1}{2}$ x6 feet, and one east and one west one of the same size. Every blind is wide open ordinarily, and shades almost up to the top; down just a little so people who pass can see we have got some. There

are no curtains in this room. But there is light in the daytime almost equal to outdoors. In the sitting room below there were the same four windows, but one foot longer, and a glass door. But when we came to build a porch all the way around this room there wasn't quite light enough coming in for the most perfect health. I noticed that we all seemed to prefer sitting in another room that was lighter. So the two south windows were removed, and the space of woodwork between them.

OUR SOUTH BOW WINDOW.

Then a beautiful bow window was put in, 9 feet wide by 7 high. We find it simply perfect. You can get some idea of how



it looks from the picture given, but as it is under a wide porch we could not get as good a picture as we desired. I had never seen a bow window that just suited me, and I had spent hours riding on street cars in cities trying to find one. This one is according to my notion and a little different from the ordinary. There is less woodwork, you notice, and more glass. The space between sashes on inside is just 2 inches, no more. And then is simply built. A 2x14 plank across the top supports the opening. It was well spiked to all the studding. Then window is big, and lets in the blessed sunshine in winter freely. In mid-winter, when sun gets so low in the south, and days so short, we want all of its rays we can possibly get in our home. And actually it shines clear across this room on the floor. The porches are high. I couldn't endure a low porch roof, one that would darken the room much. The window seat inside is 20 inches wide in front of the big glass. It is a splendid place for flowers. We have a galvanized pan, 18x48 inches and 1 inch deep, for flower crocks to sit in. Then one can pour water in the pan and it will be drawn up into the crocks as needed. There are shades on these windows to pull down during the night in winter to save fuel. It makes quite a difference. And there are very thin lace curtains on each side and above large glass, but none whatever over it. These curtains add to the looks without scarcely shutting out any light. With this big glass front, two windows and a glass door on sides, this room is now ideally lighted for health, we think. Another sitting room projects to the east and has a bow window and glass door. Thus an east room, which is often dark, is made light and pleasant. Even the kitchen has a large glass door in addition to the regular window. There is no lack of a chance for daylight to come in anywhere in our home, upstairs or down.

WEAR THIN AND LIGHT COLORED CLOTHES IN WARM HOUSE
IN WINTER.

As some people dress light let into the home would not reach any part of their bodies, except face, neck and hands. This is

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good, but not enough. In a previous chapter mention has been made of the need of loose clothes. But that is not all. We ought not to wear in our homes any more than are really needed to keep up comfortable. It is a mistake to bundle up with clothes in houses that are kept about as warm as summer. Put on wraps when you go out any distance in the cold, but wear as few clothes as you can in the house. And let these few be light colored, so far as is practicable, so light can readily pass through them. Thus you can keep your skin in a more natural and healthy condition. This is a decidedly important matter. The writer is sitting now, in his shirt sleeves, the shirt white, no undershirt on. Pantaloon is gray, summer weight, and he has kicked off his slippers, as usual. Thus he dresses a part of the time when writing for some six or seven hours a day. The shirt is the thinnest of madras cloth, such as he wears in summer. The temperature outside is 18 above zero; in here, 72. He goes out to the mail box, to the barn, to his son's, some 15 rods away, without other wraps than a coat in all weathers. My friend, A. I. Root, says in *Gleanings* that Abraham Lincoln did most of his writing in his stocking feet, so as to

GIVE THE FEET A CHANCE TO BREATHE.

God bless the memory of the great, big-hearted man, who was a thousand times wiser than I am. But on this little matter I think I do better than is reported of him, but quite likely not better than the good man actually did. In summer the socks often leave my feet when I get into my study. And I enjoy the little touch of nature as much as when a boy. And the pantaloons come off and are hung up, and if it is very warm the thin, "peek-a-boo" drawers are kicked off too. Why not let the entire body be bathed in air and have a chance to "breathe" freely for a time? Bathing in air, light and sunshine occasionally, when one can as well as not, is certainly helping to lengthen out his days of usefulness. Pardon me for telling so much about myself. But I think we are all somewhat

alike and I know I rather have a teacher tell me to come, not to go, that is, I rather follow him than to be driven. Just a word more while I am about it: If you should call on me some sunny day in winter, even, you might have to wait before I came down, for me to slip on pantaloons and socks. If any of you are ailing, dear friends, all the baths in the glorious sunshine which you can reasonably take will help you about getting better. Arrange to do all you can in this line. Of course, in hot weather you should avoid exposure to the sun's rays over much in the middle of the day. In winter you can hardly overdo the matter.

AVOID BLACK CLOTHES.

Of all colors worn, black for the daytime is the most unhygienic. No beneficial light can get through black. It is suggestive of sorrow and gloom. It used to be thought that aged ladies should dress in somber colors. All right, if you are in a hurry to join the great army of those who have gone before. This world suits me pretty well. I have one black coat left yet. Shall never buy another. Am getting grays now. They are younger looking, not so suggestive of age and gloom, and they let more of God's light through to my body. A dark shirt I never wear. They won't show dirt as quickly, I know, but I'd rather put a dozen shirts through an Easy washer myself than to have my body unhealthy from lack of being bathed in light for one month. And as I have forever got through wearing the stiff board-front shirts, I think I could iron my own on a pinch. I would, anyway, sooner than wear a dark one.

ABOUT UNDERCLOTHES.

From what is said above you may wonder if I mean that I do not wear an undershirt in winter. No, I do not, unless going for a drive in the cold; not always then; haven't for some six or eight years. It is part of the system adopted for hardening my

body. Dr. Kellogg, of Battle Creek, says that a man who can resist cold can resist disease. I do not wear an undershirt regularly summer or winter. I do wear thin drawers to prevent soiling good pantaloons which cannot be washed. When at farm work outdoors in summer I wore, usually, just a white shirt and overalls of light color. No drawers then. Quite likely I may get to wearing for best some kind of linen or duck pantaloons in summer that can be washed, leaving off the drawers. This will let in the light still better. We are all the better for being as natural as possible under our conditions. And sometimes it is a good plan to change the conditions a little; better than ill health. You may think I get colds in winter without an undershirt, but I do not. They do not come that way. Of course, one who is out steadily in cold weather may need underclothes to keep him warm. All right. But see that they are loose. As to kinds, I prefer those knit with open mesh, so air and light can pass through readily. Much has been said in favor of linen. But I fail to find them one bit better than cotton and they cost about six times as much. I have worn linen drawers for some time, getting them on the strength of what I read. No more will be bought. Cotton garments are now made in the same open-mesh style. They are good enough for me. Wear woolen if needed to keep you warm, of course. When I need an undershirt I slip on one made of cotton, with woolen fleece inside.

WEAR JUST ENOUGH CLOTHES, NO MORE.

Please do not get the idea from anything in this chapter that one should not wear clothes enough to keep just comfortably warm, for he should. But to load one's self with more clothes than are really needed, in warm house, office, work shop, on cars, doing chores in barn, etc., just because it is winter, is weakening and injurious every time. Better start in in the fall and try to toughen yourself gradually. When homes and places of business are kept about like summer during the winter period, the women, children and men who stay in them should dress about as in

summer, putting on wraps that are sufficient to keep them warm when they go out. It is entirely unwise to overload the body with clothes for steady wear so as to prevent its being bathed somewhat in air and light daily. To baby the body is to get farther from nature and nearer to disease, be the person young or old. And do not forget to let your feet "breathe" by wearing wide, comfortable shoes, and if you can and will go barefoot now and then it will be all the better. But light-colored socks, or stockings, and loose, low shoes will do quite well.

CHAPTER VIII.

REFRESHING SLEEP DURING HOT NIGHTS. MORE ABOUT PURE AIR.

It is very important that one should sleep well every night, summer and winter. There are thousands of homes in which people are unable to sleep comfortably during the hottest nights of summer. This when they sleep upstairs, particularly. We have been all through this at our home. In our old house, for some fourteen years, we almost roasted when the nights were unusually warm. It was a story and a half building and the air upstairs got excessively hot when the sun shone during warm days. We had windows raised and mosquito bar cloth tacked over the opening. Precious little air got through it. Later we used wire screens in the windows. They were better, but it took about all night to get the rooms cooled off. Many a restless night have we put in, arising unrefreshed in the morning, not knowing there was any other way to do. This old house had a shingle roof. When we built a new home, twenty-six years ago, a slate roof was put on, because we wanted the cleanest of rain water to use. The house is two stories high, and the roof one-half pitch, but that slate roof made it almost unendurably hot upstairs in summer after a day of warm sunshine, unless there was a strong, cool wind blowing at night. Not caring to use the attic, it was not floored over, and there were no windows in it, of course.

IT GOT FEARFULLY HOT UP THERE.

And gradually the heat worked down through the ceilings into the bed rooms. At bed time they were often almost like an oven. We had screens in lower half of all windows, but unless there was considerable wind the heat would be all night getting out, sometimes. The rooms just about got comfortable when it was time to get up. Doubtless many of my readers know all about this. If it was a sunny day the air in rooms would begin to grow warmer by the middle of the forenoon, and from then on it would slowly heat up ready for the next night. We often laid down under the windows on the floor to catch a little breath of fresh air. What little cooler air came in would sink to the floor first. Down stairs it was not nearly as warm. Time and again we have had to take our pillows and go below and lie on the floor with our heads near a screen door. This kind of work went on some eighteen years. We were full of business all the time and simply took these unpleasant conditions as they came and endured them. Certainly no time was spent in thinking out a remedy. At last, in some way, I happened to get at it and do some thinking. In two or three hours it was plain to me how silly we had been to let this sleep destroying condition go on so long. All I had to think was, what all well know, that

WARM AIR RISES, IF GIVEN A CHANCE.

At once I telephoned to a carpenter to get us 1,000 feet of flooring and to come over and do some work as soon as he could. First, I had him cut a trap door, 3x4 feet, through ceiling in hall upstairs. Then a step ladder was fitted so that at a touch it would come down ready for use, or go up to the ceiling out of the way. It was made strong and hinged at ceiling, so it answers well in the place of stairs, which we have no room for. This ladder and the trap door are balanced by weights, of course, attached by window cords running over pulleys. Next, the carpenter cut out holes in each of the three gables, quite close up

in the peaks, and put in windows about two feet square. These have fancy glass in them so as to look nicely. We bought them ready made. They are fixed so one can take a window out in two or three seconds and put in a screen to keep out flies and mosquitoes. The screens go in and come out as readily as do the window sashes. The sashes need to be put in occasionally, during a big storm. Notice that the entire sash comes out, so one has the full opening for the warm air to pour out of.

THE SCREENS ARE MADE OF RUSTLESS WIRE.

They need no painting. They let air through much more freely than do the painted ones. When there was a chance for the hot air to get out some the carpenter was able to live in the garret while he was laying a floor all over it. He was an old man of much experience. He volunteered to tell me that my scheme wouldn't work. He said that a certain man in town had put windows all around in his garret and it was but little cooler for it. Come to find out, they were regulation windows of about 16x36 inches, narrow way up and down, and located right at the floor. I didn't argue the matter, or care for the man's opinion. Having once thought the matter out, I knew what the result must be, just as well beforehand as afterward. At the same time I bought rustless wire cloth and put on all five screen doors down stairs, after tearing off the old painted wires. I did this myself.

A SCREEN FOR THE ENTIRE BED ROOM WINDOW.

Again, I had screens made for five of our bed room windows upstairs. These were the full size of windows, $2\frac{1}{2}$ x6 feet. To use them we take stops off and the entire sash out. The screens are held in place by simple window fasteners, one on each side. They can be taken out, or put in, in five seconds. In case of

ordinary rain, or high wind, we close outside blinds, more or less. Two or three times in a summer we may need to put the sashes in on one side of the house, or possibly on two sides, during a driving storm. They are all kept standing handy by in a corner. I can put them in one window in less than a minute. Of course I do not stop to attach cords and weights. One can hardly explain just how every little detail was fixed, but having the idea most anyone can study the matter out. It took me some little time to get everything handy, but I did the work myself and the money cost was very small.

NOW WE WERE READY FOR HOT NIGHTS.

But isn't it strange, they failed to come. This was some eight years ago, and we haven't had any nights since when it was uncomfortable in our bed rooms. The seasons have changed—in our bed rooms, and changed to stay. There is almost never a night when a cotton sheet and a single light woolen one is not wanted over us when we go to sleep. At the end of the first summer wife said: "We haven't had a single hot night this year, such as we used to have." She failed to give simple science all the credit. We had had just as hot nights, but we didn't bottle up the heat and hold it to make us restless and uncomfortable half the night or more. This is the way it worked: About 5 P. M., as soon as the power of the sun began to weaken, and air and roof to grow a bit cooler, the hot air in garret would pour out of the windows, one way or the other, according to how the wind was. Remember, they are close up in the peaks. Of course, this going out of hot air caused fresh air from outdoors to come in through the doors below and through large screened windows upstairs. This process went steadily on, all the warm air in house rising slowly and going out, and other cooler air coming in to take its place. At 9 P. M. the temperature in any room upstairs would be within a degree or so of the same as it was outdoors on a porch.

I MEAN PRECISELY WHAT I SAY.

I have tested the matter with thermometers time and again. This refers, of course, to rooms where these big screens were put in. When all rooms are not needed we have not always had them all in. You will understand that to get such results there must be big screens and sashes out on east, west and south sides, so as to give a chance for cool air to come in from every direction that is necessary. When wind is in the north it will be all right anyway. To go to bed, after sitting on porch and cooling off, has always been a pleasure since this change was made. The temperature is so nearly the same in bed rooms that one will not notice the difference, after lying down. Restful sleep is so very important that I lay much stress on this arrangement. It is great. One can put a large ventilator at the peak of roof instead of the windows at the ends. But it will not be as good as is our plan for keeping upstairs rooms comfortable in daytime. Wind can blow through the gables as we have it and much heat is taken out during the day, thus lowering the average temperature. Our garret is high enough in middle so the room is of value for storing many articles. And then it is

A FINE PLACE TO HANG CLOTHES TO DRY.

It beats going outdoors in winter. We didn't floor over the garret in the first place, partly for lack of money. It was a mistake, however. With the floor laid we should, of course, have had windows of some kind and home more comfortable, but not entirely so until the simple thought came to us that hot air rises, if man will let it. Some do not have outside blinds. Well, plain board shutters, hung on hinges, will take their place. These shutters can be removed during the winter. Fixed in this way one will hardly need to put in sashes during a driving storm. The board shutters can be made to close quite tightly. During a big storm rain will drive through the slats of blinds. But blinds with the slats open more or less are nice to let in a little

air when wind blows very hard, or to keep out heat of sun in middle of day, and still let in some air. We used to have screens in every window down stairs years ago. We have the screens yet, but only use them in two or three windows. With the strong draught up through the house the doors let in air enough, usually. In the old way, you see,

THE HOT AIR COULDN'T GET OUT.

That in the upper part of bed rooms wouldn't drop down and go out of lower part of windows. With windows partly let down from the top heat could get out better, but nothing like as well as it does now. Not only can one get cooler air in this way, but also air which is far more pure. It is a most excellent summer ventilator, and automatic. I assure you it is a matter of quite a little importance all around. If your attic is low, never mind. You may not be able to get as perfect results as we have, but you can help matters decidedly. Give the heat a chance to get out freely at the very top, and cooler air a chance to come in as freely below, that is all. I have spoken of trap door hung in the hall. If you have no hall you can put the opening in the ceiling of any central room. We haven't a particle of need of going to the mountains to get nights cool enough for restful sleep, as we used to long to do.

BETTER THAN CAMPING OUT.

A few people sleep in tents out in their dooryards during warm weather. That is good. They can get fresh air. And the tents cool off quickly at night. But by making use of our plan one can have as good air, practically just as cool, during the hot weather in summer. And then there is no trouble from mosquitoes, bugs or other pests, such as it is not easy to keep out of a tent. Our bed rooms summer nights are equal to the best one can have when camping out, without any of the disadvantages.

Dr. W. J. Hardy, Belmont, N. Y., recently read to a class of young men in that place a paper that in substance agrees precisely with the teachings of this book from end to end. Our friend, E. Harris, Scio, N. Y., who kindly sent us a copy of this paper, says of it: "I wish all physicians would come out and be as honest and frank as this one is. I know that as a result people would have better health and longer lives to live." You see, without knowing at all that I was at work in this line, friend Harris hit on just the title of this little book.

VIEWS OF AN HONEST PHYSICIAN.

I want to quote just a few pointed sentences from this intelligent and faithful doctor: "Many resort to drugs to get strength. But let me impress on you the fact that no drug ever produced the least strength. Many people honestly believe they need a so-called tonic, made of iron, quinine, arsenic, strychnine and alcoholics. Dr. Kellogg, of Battle Creek, speaks of these drugs as nerve foolers, because they give the impression of building up, while they are really weakening the system. How many hundred years more will be required to force upon people the fact that God's pure air, and beautiful sunshine are the best tonics this world has ever known?"

Thus this posted and conscientious physician goes on, covering many of the subjects that are treated in these pages. But there is one matter of great importance which he mentions that I want you all to read and think over:

"HEALTH DOES NOT DEPEND ON ANY ONE GREAT THING, BUT ON ATTENTION TO MANY THINGS."

Truer, more vital words were never spoken. No one great matter, like pure air, or sunshine, or food, or drink, or exercise is enough to lead you to long life, free from common ills. You must not have any hobby to the exclusion of other important

matters. You must pay reasonable attention to many matters. It will be no hardship, once you get into the habit of right living. In fact, your life will be far more full and pleasant. So this arranging to have the bed rooms cool and comfortable during hot nights, so sleep can be refreshing, is not the only thing, by any means, although much of a chapter is taken up with it. In fact, it is not nearly all of the simple matter of sleep, as you will see by studying the chapter which deals more particularly with that subject. What is in this chapter is simply one of the many things that you will find helpful, if you make full use of it. Always remember that no drug or medicine in existence can give you any real strength. But peaceful sleep in pure, cool air will add to your strength every single time.

A GREAT HEALTH ORGANIZATION.

Some of you may not know that there is in this country an organization known as the American Health League. From 2,000 members it has increased to 23,000 during the past 12 months. In connection with this League there is a committee of 100 on National health, composed of the strongest men and women in this country. It is safe to say that a committee carrying so much influence and brain power was never before gotten together anywhere in all the world. You would agree with me if I could take space to name them. The president is Irving Fisher, of Yale University. At a recent meeting in Baltimore Prof. Fisher said a few things in his address that I want to repeat to you. The report has just come in, since previous chapters were finished. You may think I am a little over enthusiastic, have put the value of pure air, pure water, etc., a little too strongly. So I want to quote a few sentences from the president of the greatest health meeting probably ever held on earth: "Aided by 18 medical experts I have calculated that the prevention, even in a moderate degree, of the preventable diseases, would

LENGTHEN HUMAN LIFE FULLY ONE-THIRD, AND
POSSIBLY MORE.

"More than three-fourths of the deaths from tuberculosis, which alone number 150,000 per year, are unnecessary. More than four-fifths of the deaths and illness from typhoid fever could be avoided. And for every death from typhoid fever prevented by sanitary measures, two or three deaths from other diseases are prevented at the same time. There are at all times about three million people in the United States who are seriously ill. Most of this illness is preventable. Even the simple matters of pure air, pure water and pure milk, if used throughout the Nation to the extent that they are used in certain individual cases, would alone lengthen life by an average of at least eight years." The above is from the official organ of the League. It is the result of painstaking study and investigation by many of the highest of experts. And I want to have you notice that these were largely medical experts, the great men of the profession. You see America is waking up. Isn't it worth while to take the little trouble we have suggested to get pure water, and have pure air to breathe? I do not consider Pres. Fisher's estimate of eight years average increase of life any too high. And if you will improve these matters in a broad, full way, you can probably about double the eight years.

HOW TO ADD SIXTEEN YEARS, AND MORE TO AVERAGE
DURATION OF LIFE.

Not only have pure air day and night, but wear loose clothes and try not to prevent nature from taking plenty of it into your bodies. Fix to ventilate your sleeping rooms thoroughly summer nights, as well as winter nights, as you have been told how to do in this chapter. Not only have pure water, but drink enough of it to keep body clean inside. Such broad improvements will be far reaching in their effects. It is like the prevention of typhoid fever; you will ward off many other troubles at the same

time. If you will improve in every line mentioned in this little book, as thoroughly, I firmly believe 50 per cent. can be added to the average duration of human life. As one earnest member of that league of 23,000 the writer is doing all he can to help on the great work. It is a shame to have three million people seriously ill in the United States all the time, when nearly all of this can be avoided by simply living a little more properly. But in a general way little can be done except to lay the truth before the people. To get the results individuals must take hold of the matter and work out their own salvation largely. The Government can see that we have pure food, that great rivers which furnish people with drinking water are not turned into sewers, and it can spread information broadcast by printed matter. But it rests with the individual to do things that will add to his life. That is just what we are doing at our home, and have been doing for several years. There have been a number of sad deaths in our community during the past winter from entirely preventable diseases. Men taken away in their prime. The blame used to be all laid to the Lord. But it isn't now. Such words as Prof. Fisher's show where it belongs. It is a terrible state of affairs when people haven't time to pay a little attention to living properly. Our business push has made us the greatest Nation on earth. When a little of this great brain power is turned to the care of our health we shall soon become the longest-lived people on the face of the globe. Alas, we are not so now. Too much rush and carelessness and money to spend has turned the scale against us. But we are going to make great strides in the right direction during the next few years.

YOU CAN DO MORE WORK IF YOU BREATHE PURE AIR.

Thus you can make more money. Do you care more for money in your hand now than for health in the future? Let me tell you something along this line. You have read how we have our furnace fixed so we can revolve the air over and over in the house. Thus as we breathe it, it becomes more **and more**

impure. Or we can take all air for furnace from outdoors, thus keeping it entirely pure under all conditions. Now, suppose we are using the same air over and over and I am trying to write in my study. Soon I will begin to feel dull. There will be a lack of ambition. Perhaps by 2 P. M. I will feel so tired and disinclined to work that I will quit entirely.

Now, suppose another day, with all other conditions the same, I take all air for furnace from outdoors. The fire in furnace forces a steady stream up into my room through a 9x15-inch perpendicular pipe. It is not hot air, but air warmed just to comfortable summer heat. Our plan is, you will remember, to move much air slightly warmed, not a small amount of overheated air.

WITH THIS AIR TO BREATHE I AM FULL OF AMBITION.

I can do my best. I know nothing of being tired. Can keep hard at work until wife calls me to supper at 4 o'clock. I go down stairs on a trot, feeling as brisk as in the morning. I have tested these matters over and over. Water, food, sleep, exercise, sunlight are not all. You may attend well to all of them and still not be at your best simply for want of enough fresh air to breathe. Mining engineers have tested this matter to a nicety. Air is pumped into mines, you know. They can measure the amount. It is business to furnish the men just what they will pay for and no more. It takes a certain quantity each minute per man to enable miners to do a full day's work. Without the men knowing anything about it, engineers have diminished the supply of fresh air sent in a little, to find that less coal was mined. The miners knew nothing of what made the difference. But the excess of gas reduced their ability to work, just as it does in my study. Now, the very same thing holds true in your home, office, work shop, school house, church or store. Suppose a woman is eating, drinking, sleeping, etc., correctly, but working in a house with almost no ventilation. She does all she can, but finds it hard to keep going, just as I did in my study under the same circumstances. But let that same woman come work

in our perfectly ventilated house and soon she will do 50 per cent. more, and perhaps twice as much, with no thought of being tired. She was not lazy in the first instance, just stupefied by the poisonous gas in the home. And still there are thousands and thousands of homes in just this condition, all through the colder parts of the country. I have seen them everywhere. They are the rule today, not the exception. Say nothing of the chance for better health and longer life, it will pay in dollars as one goes along to ventilate these homes.

YOU ARE LOSING DOLLARS WHEN YOU BREATHE IMPURE AIR.

The extra work done will pay for increased fuel needed, with proper methods, and give a fine profit besides. I know just what I am writing. It is a big mistake financially to breathe the same air over and over day or night. If you do it daytimes you will accomplish less. There can be no continued exceptions to this rule. If you do it at night you will have less strength for the morrow's work, just as surely as the day comes. People have got terribly thoughtless and careless of these simple hygienic matters. Many, I suppose, have never been taught. But many who do know seem to pay no attention, their minds being full of money making. Hence this appeal to them through the pocketbook.

EFFECT OF PURE AIR IN A STORE.

The finest dry goods store in Cleveland was built not long ago. They spent much money in putting these very ideas into practice on a large scale. Air is pumped in fresh, same as for miners in a mine. It is taken from the roof so as to get it as pure as possible. It is passed through water to get the dust out. And all this pays them the biggest kind. I don't believe they realize how much. But perhaps it is not for their interest to say much about it. It is my opinion that without knowing it, their army of clerks is able to do 50 per cent. more work easily.

All this aside from their better health. And then the customers of this firm will feel better, trade more and come again. There is no end of stores, offices and shops in the city where about half the present force could do all the work, if they had enough pure air—and were compelled to go without their dinners.

FOUL AIR IN CHURCH.

A minister once stopped in the middle of his sermon, after making a statement, and said to one of the congregation, "Isn't that so, Mr. Blank?" Now, Mr. Blank was sound asleep. Was he very much to blame for being in this condition? The trouble came from simple lack of fresh air. It was the stupefying effect of foul air breathed over and over. Mr. B. was a farmer and had fresh air all the week outdoors. He dropped off to sleep in that impure air in a perfectly natural way. The minister had to keep awake, as it was in the line of his business. But he found it necessary to talk pretty loud, I noticed, in order to keep up steam enough to do it. Many of the congregation were used to impure air at home and could stand it better than B. did. Some others forced themselves to keep awake as a matter of respect for the Lord's house. The writer has done this many a time, haven't you? Instead of changing ministers to get one less dull it might be well to try the effect of fresh air on the old one. Every public speaker knows of the terrible strain on one's vitality when he tries to do his best in foul air. I once saw Ex-Governor Hoard take a chair and smash out a window that could not be opened. Your children in school will be as much benefited by fresh air. But they rarely get it. As a result they cannot learn as fast, say nothing of the fearful danger to their health.

A LAST APPEAL.

You may say this is sensational. That is because it is uncommon. The common way is to go along, be poisoned, half

work, suffer more or less and die usually when you ought to be at your very best. You cannot put your finger on one single point made above which is not substantially true. There is nothing that we are not practicing. We trade at the store named on account of the ventilation, largely. I know good people who won't go to church in cold weather, when windows are closed, and breathe in poison. They are too well posted as to the danger. People are buried by the thousands, long before they need be, partly from breathing impure air. They could accomplish more, thus saving or making more money, by having it pure. And then they would have a chance to live out their full days. Now, are you, my dear readers, going right on in the old suicidal way, or will you do something about it, and do it now?

CHAPTER IX.

DISEASE. CONSTIPATION. OLD AGE TROUBLES, ETC. CORNARO.

WHAT DISEASE IS.

It is an effort of the body to work out poisonous waste that in some way has accumulated within it. When food is eaten some is used by the body, and the waste material remaining, the part not digested, should be freely passed off through the intestines. If more food is eaten and digested than is needed the excess becomes waste. And then waste is forming constantly all through the body, dead particles of tissue, the result of exercise, which should come out promptly. There are four outlets for these various forms of waste. These are through the skin, lungs, kidneys and bowels. Now, in plain English, if all of these four are doing their work perfectly, and there is no accumulation of waste anywhere, there can be no disease. You are perfectly well. There is no such thing as a disease coming along when you are in such a condition and your catching it. If there is no excess of waste in your body anywhere, disease is impossible. You can move around in the midst of it with entire impunity.

But bear in mind right now that few people so live as to practically be in this condition. But when they do the above is the simple truth. I have used the word "perfect" in connection with your condition. But, of course, you know that nature always allows a reasonable margin in the way of excess waste in the body. She does not expect impossibilities. When I say "perfectly well" I mean that one is safely within this margin. Disease is certainly the effort of the body to expel retained waste. If we so live as not to have any extra waste we simply cannot have any disease. A fever is an effort of nature to burn up surplus waste, to try to catch up with her work. Within reasonable bounds it is a helpful process. If it goes too high we say nature has overdone the matter. But almost invariably, if not always, in such a case you will find that nature was not assisted in her work by having the patient drink enough cool water, and abstain from all eating. To coax up the appetite in such a case with daintily prepared food is simply adding fuel to the flame that will bring death.

NEVER MIND NAMES.—KEEP BODY FREE FROM WASTE.

The hundreds of names given to disease serve to mystify people. In simple language, the many different kinds of waste from different foods, and under various degrees of decomposition, and making trouble at different points in the body, naturally give a large number of varying symptoms, from which come the numerous names. These symptoms may be smothered more or less by the use of drugs. Tired organs may be spurred up to do a little more, but it is much the same thing as whipping a tired horse to get a little more out of him. To cure one should invariably assist nature to remove the cause of the disease, and the quicker and more directly you do this the better. Now, you have been told plainly in this book how to live so there will be no excess of waste in your systems, and hence you cannot have

any disease. Enough pure air breathed helps to work out waste naturally in your breaths; plenty of pure water aids about washing it out. Proper food, but not over much, eaten under right conditions and chewed enough, helps about preventing any excess of waste in body; exercise takes out old tissue, and so on. Perhaps you do not fully grasp the idea that the advice in each chapter is a link in the chain of right living, which chain will prevent all chances for disease through a long life.

THE CAUSE OF COLDS.

You may wonder if one can prevent the little troubles such as common colds. Certainly. The so-called cold is one of the simplest diseases and easy to prevent. But this ill is not named correctly. The name came from the supposition that it was brought on by exposure to cold air. This is in a large measure wrong. The real, fundamental cause of a cold is always to be found within the body, never outside of it. It is a disease in a mild form, and comes from an accumulation of waste materials in the body, invariably. Impure air breathed, too little water drank, loss of sleep, too much food eaten, overwork, etc.—among these you will find the real cause of all colds. A chilling of the body may be the incidental cause of the cold coming on just when it does. It may be the last straw that forces nature to rebel and go to cleaning house by drawing on the strength that was trying to overcome the surplus waste to ward off the effect of the cold. But, as a cold is always a curative process, always nature's effort to clear out waste, do not avoid or worry about exposure to fresh and cold air, when you are properly clothed. If the cold did not come on the accumulation of filth would continue increasing until a more serious disease like pneumonia might be the result. A cold should always be a warning to one to look out and remove the real causes.

ABOUT EXPOSURE TO COLD AIR.

The fact that you do not always get a cold when exposed to cold air shows that exposure is not the real cause. Time and again the writer has been chilled through and through and no cold followed. Again, he remembers coming out of the barn once and standing in cold wind talking to a neighbor who was driving by. A severe cold followed. In the former cases there was no excess of waste in the system; in the latter one there certainly was an excess. This shows you how exposure may bring on a cold, if back of it there is a body that needs cleaning out; otherwise it cannot. Suppose your cold is in your nose. This means that nature has started an inflammation there through which she can work out some of the excess waste in the body. That is all. Help her all you can, by breathing more fresh air, drinking more, eating less, etc. To be afraid of fresh air at such a time and to eat heartily is to delay recovery invariably. And when you get over the cold, remember that attention to these same details will prevent your ever having another one. It will be the same when symptoms of cold, that is the inflammation, shows up elsewhere. If you continue to live in the way that made it necessary for nature to bring on the cold, why, naturally the cold symptoms will continue, and then we call the disease catarrh.

CATARRH IS A CHRONIC COLD.

It may be in most any part of the body, same as a cold can be, but the cause is always the same; excess of waste, which isn't removed by regular eliminating organs, working out through inflammation in mucous membrane lining of the parts affected. Nature has in a measure established a fifth outlet for waste, the four regular ones not being equal to the task of keeping surplus

filth cleaned out of the body. Always remember that this filthy matter that you may cough up, or blow out of nose, or which comes out of you otherwise in catarrhal discharges, first went into your mouth in the way of improper, or excess of, food under the conditions existing at the time it was eaten. This is the plain truth and will help you to cure yourself, which you can do. But in long standing cases, where waste has gotten in the habit of going out the wrong way it is a slow job to correct the matter. But it is the only plan that will bring one permanent relief and exemption. Few have been any nearer death than the writer has from catarrh of the throat and bladder, and probably most all through him. After the matter was once thoroughly studied into and understood he cured himself entirely. That last word is a strong one, but I assure you I know just what it means and it is the right word. It took years of persistent care in living to get in condition so I could say it. And a little systematic care to live properly will prevent all such troubles. If I ever have catarrh, or a cold, again it will be all my own fault. Someone's opening a car window in front of me, or getting in a draught anywhere, or getting my feet wet, or my body almost frozen, will make no difference. If I live rightly such little matters can never harm me.

THE DANGERS OF CONSTIPATION.

There is one matter connected with the prevention of disease about which more should be said. It has been mentioned before, but ought to be considered more fully. It is keeping the bowels always open and loose and free. Constipation is a National ill, and serious in its consequences, when long continued. Waste is retarded that should pass out of bowels quickly and fully. As a result, it decomposes more or less, and the poisons resulting are absorbed into the system. In fact, nature

in her effort to save life absorbs this filth, which does not go out freely and naturally, into the circulation to try and remove it from the body in some other way. This is the plain truth. It is not a pleasant matter to consider, but it is one that puts poisonous waste into the bodies of many thousands of people, thus bringing on disease. And disease is, you understand, simply an effort of nature to get such poisons out of the body. Just what form this disease may take is uncertain. Appendicitis, that is an inflammation in the part of the bowels where the appendix is, may be brought on. So may typhoid fever. And the trouble known as piles is a common result of constipation. I tell you positively that you cannot enjoy perfect health and live long without keeping your bowels constantly open and free. The matter is so simple that no one can help but see that it is right. When the excrement comes out only by straining, and in little, hard, dry balls, and perhaps one goes a day or two without even this poor passage; when pills or injections are needed to work the waste out; you may rest assured that part of that filth has been absorbed into your blood through the walls of intestines. With this condition existing you cannot be perfectly well. You may live along after a fashion, not really sick, but you cannot have ideal health, the best there is. And all the time you are in danger of serious disease on short notice.

THE ERROR OF A GOOD TEACHER.

Doubtless some of you have been reading after Mr. Fletcher, who has done much good advocating more thorough chewing of food. About that he is all right, only that he carries the matter to extremes. He advocates, or says he practices, as I understand the matter, such perfect chewing of food and rejection of parts that will not dissolve in saliva, that is spitting them out, that bowels may not move more than once in three or four

days, or even a week. In regard to this "Good Health" says: "Nature is a great teacher. The observations of the habits of animals, and of healthy children, indicate that in a perfectly normal state it is preferable that the bowels move naturally after each meal." This is sound sense. It is too bad that Mr. Fletcher should lead people astray with such silly ideas. A teacher hurts his influence for good when he goes wild in some directions. Why, the editor of one of the health magazines went so far as to publish an editorial considering whether, in view of Mr. Fletcher's experience, it wasn't possible to eliminate the colon entirely. Well, our intestines were made for foods with a certain amount of coarse waste in them. We take no stock whatever in such nonsense as the above. Unnatural ways of living and an improper diet have quite generally produced an abnormal inactivity of the bowels. Let us face the truth and make natural, sensible changes.

BOWELS SHOULD MOVE FREELY TWO OR THREE TIMES A DAY.

Such living as we advise in this little book will do away with all troubles from constipation. The writer so lives as to have usually two, occasionally one, or three, free movements of bowels daily. It is a little more trouble than to never have but one, but the results in the course of time pay one grandly. I write that which I know. People have become careless along this line. The result is constipation, with all its train of following ills. Carloads of laxative medicines are taken by the suffering people, and great quantities of water are used in the aggregate in the way of injections. This is far better than closed bowels, of course, particularly the injections. Drugs gradually lose their power, and so do the bowels into which they are put. It becomes harder and harder to make them move naturally. The reports that have come to us about trouble with constipa-

tion are so numerous as to make the matter appalling. Our friends do not seem to realize the truth. At any rate they are slow to change so as to entirely prevent all trouble. Do not think for a moment of trying to live long and be at your best without learning to eat, drink and exercise so as to make your bowels move freely and loosely about twice a day.

BANISH OLD AGE TROUBLES. CURING PILES.

We hear much about the infirmities of age, the so-called old age troubles. There should not be any such thing. It is not natural. We bring these troubles on ourselves, and then think they are unavoidable. It does not pay to have our lives shortened in this way and to endure so much suffering. Few men living have any better right to say these things than I have. I have been over the ground and know. Old ideas cannot stand against facts and positive knowledge. Let me illustrate a little. My father was a minister, and suffered severely with piles to the very end of his days. When I arrived at middle age they began troubling me. Gradually they grew worse until I got alarmed and went to a good doctor, a friend of ours. He offered me no hope whatever of getting over the trouble for good, but gave me something to inject to relieve. And he advised me to inject about half a teacupful of cold water when I first got up each morning and learn to hold it until after breakfast. He said it would soften up the hard excrement without weakening the bowels. But he frankly said the trouble would gain on me and grow worse as I got older. What an awful suggestion that was to give a patient. But the doctor was entirely honest and stated the matter just as it would undoubtedly turn out if I went on living as I had in the past. Well, I did for a time. And for years I never once had a movement of the bowels without first injecting a little water and leaving it a while. It was a de-

cided help, but, of course, only a makeshift. It did not cure by removing the conditions that caused the trouble. After a few years I got to understanding these and it is now several years since I have had one single trace of piles. And I am now seven years older than my father was when he passed away, simply and only because he didn't know how to live. He was a man of iron will, who would have done right if he had only known the truth. It is no shame to confess to ignorance, but it is a burning shame not to accept the truth when it will set us free from earthly ills. "Grow worse as I got older." Not much!

URINARY TROUBLES DONE AWAY WITH.

In the same line I can tell you of a complete cure of long standing and serious urinary troubles. I have got up five, ten, fifteen and twenty times in a night, suffering greatly each time. I have even been obliged to get up thirty and forty times when I was the worst. Broken of rest like this you can hardly imagine the condition I was in. And the best doctors said it was owing to my age, and they failed to cure me, although I took no end of their medicines. When at Institutes, or visiting, or in town, daytimes, few can have any idea of the troubles I had. I have suffered an ordinary death most every day for years and still kept going, from sheer force of will. And now I rarely think of getting up at all nights, for 9 or 10 hours. And you know I drink water freely, in early part of day, however, and I eat much fruit, getting more than a pint of water in my supper every night. Nothing special was done to bring about a cure. Gradually, from the plain, wholesome, natural ways of living taught in these pages my body became sound all through. The urine became natural so it no longer irritated the bladder and passages out. But, friends, I was years and years gradually accomplishing all this. There is hardly a more common old age trouble

among men than the one we have been discussing. But it has been banished entirely. You can all do the same, for you can't be worse than I was and live. But it will be vastly better to begin earlier and so live as to never have any such trouble. In previous chapters you have been told how to prevent and cure rheumatism, another old age infirmity, from which I used to suffer considerably. It is by no means pleasant now to own up to living so carelessly and thoughtlessly as to bring on these old age afflictions. I certainly would not do it only to make it plain to all how they can be kept well through a long life.

OPINIONS OF GREAT EXPERTS.

It is a shame for man to have his usefulness in the world begin to decline at 50 years of age, or 60, or 70, and to end up his days with a large amount of suffering. It is not natural. Much interest is being taken in this point at last. The well known Government expert, Dr. Wiley, says: "Progress in science will soon put the limits of activity up to 90 years." Dr. Haig, one of England's highest authorities, says: "A stronger, more active, more noble life, lived for 100 years, and ending in a natural death, which will be painless, is what knowledge of the truth promises today to all who dare to follow it." This is not for a few favored ones, you notice, but to all who will do their part. Pasteur's successor, Prof. Metchnikoff, recognized as the world's greatest scientist, goes farther yet, saying: "Man should be in his prime at the age of 80, still vigorous at 120, and live to the age of about 140." You all know that in Bible times men lived to be far older than they do now. They had simple and plain living then, and no drug stores, hospitals, operations, etc. If people will adopt reasonably wholesome living conditions there should be no trouble in reaching the century mark at least, free from old age troubles. The writer has taken the trouble to in-

investigate quite a few cases where people have lived to be very old, and have retained their faculties with exemption from the usual infirmities of age.

ONE SAMPLE CASE.

We are indebted to John F. Meloy, age 66, Lebanon, O., for a recent report of Mrs. Nancy Butterworth, who had just celebrated the 99th anniversary of her birth. Her elder sister lived to be 100. Briefly, Mrs. B. has been the mother of 11 children. She was married in 1830. When asked for some of the causes of her long life she replied: "I have never eaten as much as I could at a meal since I can remember. I early learned what foods were injurious and what ones were natural and most wholesome. I eat only two meals a day, at 8 and 4. A large part of the human family die before they need to. They eat what they should not, they eat when they should not, and they eat more than they should. And then they expect some doctor with poisonous medicines to keep them in health." It is quite evident that Mrs. Butterworth's mental faculties are all right yet. I could give you reports of quite a number of similar cases. I have reports of those who when past the 100 sank peacefully away, as though going to sleep, in full possession of all faculties and doing their regular work to just about the end. Notice how exactly this agrees with Dr. Haig's words. In passing, let me say to you frankly, that I do not know of one single case where a person has lived a century, well and happy, who was a large and careless eater. They may not do just the best in every line, but they cannot eat heartily of ordinary foods and attain this end. Study the first part of this chapter and see why. If they are large eaters they get overcharged with filthy waste, then disease takes them off before the time when they should go, and usually after much suffering. Farther on I will give you a report of Cornaro's way of living, as he was one of the most noted of the long livers.

CONSTANT EXERCISE OF VITAL ORGANS.

Across the middle of the chest there is a muscular wall called the diaphragm. Or, to be more exact, it is between the chest and abdomen. Above it are the heart and lungs; below it the stomach, liver and intestines. Now, there are two ways of breathing, you know, one by expansion of upper walls of chest, the abdomen remaining about steady; the other by the expanding and contracting of abdomen, the upper chest walls remaining comparatively stationary. The latter is undoubtedly the natural way of breathing under ordinary circumstances. Wild animals and healthy infants that are unrestricted with clothes breathe that way. First, it is the easiest way of getting air to lungs. Second, it does much more by constantly moving, massaging, the vital organs with every breath drawn in or expelled. This helps the stomach and the intestines about doing their proper work. It helps actually to prevent indigestion. Yes, this regular movement of stomach and bowels forces more blood out, draws more in following, and aids the natural peristaltic movement of the bowels which carries the contents along. And then it helps about mixing the food with the digestive juices, the churning of it up together. There is no question about these matters. You can aid digestion. Try it some time when you feel a little trouble, brought on perhaps by bending over and cramping this natural movement. Sit up quite straight and breathe deeply and fully, long, steady breaths by moving abdomen, and notice how soon relief comes.

ABDOMINAL BREATHING HELPS PREVENT CONSTIPATION.

This in connection with proper food, water, etc. This will make you see the vital importance of point brought out before of having all clothes loose about chest and waist. You may

wonder why there are two distinct ways of breathing. There is a plain reason. Abdominal breathing is for general use. But in case of unusual exertion one cannot get air enough that way, so then chest breathing can be resorted to. And it is always well to use the chest method some daily, expanding the chest cavity and using the lungs quite fully. We preserve what we use freely, you know. But those who wear tight belts and breathe commonly by movement of chest only, fail to properly move about and exercise and vitalize the organs in the body. Learn to breathe by movement of abdomen usually, and you will be doing your best in this line. There is a mistaken idea that the lungs do the breathing, drawing in the air and expelling it themselves. Oh, no; when you expand the abdomen, and lower diaphragm, a vacuum is formed and air rushes into lungs. Then when you contract abdomen and raise diaphragm the air is squeezed out of lungs. In the same way the walls of upper chest expand and contract and draw in or expel air. Breathing is done by muscular effort, but not by the muscles of the lungs. This matter of breathing is considered in this chapter because of the important mechanical effect on the intestines that comes from the steady kneading of proper abdominal breathing, which aids decidedly about banishing constipation.

NO INCREASE IN AGE FOR TEN YEARS.

Perhaps you will like to read a little of the experience of one who dares to follow the truth, as Dr. Haig puts it. When the writer was 56 years old some Eastern friends, who were quite well acquainted with him, asked his age. He invited them to guess. After some deliberation they decided that he was about 67. The fact is that after he was fully grown he was always taken to be some five years older than he was. As he got along in years good judges considered him to be about ten years older

than the Bible record said. They were right. He was really that old. Years do not count so much as do the conditions in the body. My body was badly clogged up with waste and I was really older than my years indicated. Last week, while chatting with some friends in the city, men of good judgment, the question of age came up. There were two white heads besides myself. My old experience came to my mind. So I asked these gentlemen to guess on my age, saying that I became gray early, so it would be well to judge not so much by my hair as by my general appearance and condition. The verdict was that I was about 65. Do you know, that did me a world of good. If I could in ten years set my general appearance back so that I look a year younger than I am, instead of eleven years older, what does the future hold in store for me? A man is really as old or young as is the internal condition of his body. And this condition will show itself plainly in the looks of face, hands, general carriage and ability to manage business. You see I am full of "Keep well and live long."

AN OUTLINE OF LOUIS CORNARO'S LIFE.

This noted man was mentioned in a former chapter. But surely you will all be pleased to hear a little more about him. That I might be sure of having the exact facts I bought a book containing translations of his writings. There has been much written about him, some correct, some not. Intemperance and other excesses brought this man close to the end of life when he was but 35 to 40 years old. His doctors told him that the only possible chance for him was to turn over a new leaf all around and live a temperate and orderly life. He had suffered enough to be satisfied that they were right, so he made up his mind to change, and he had the will power to carry the matter out. He says that as a result of this change within a year he found him-

self completely cured of all his complaints. At the age of 83, after more than 40 years of splendid health, he wrote the first remarkable treatise, called, "The Temperate Life." When he was 86 he added some to this book, and again when he was 91 and 95. During all the hundreds of years since this book has been a classic in his native land. Cornaro stood practically alone in his ideas, 400 years ahead of his time. But people revered the man and his clear, beautiful teachings. He seems to have kept all his faculties at their best to the end. It is a wonderful story. And still this famous man knew much less than we do now about the many details of the great subject of increasing one's days of usefulness and enjoyment on earth. But on two or three leading points he was entirely sound. A few of them follow: "I have avoided remaining for any length of time in places that were poorly ventilated. I exercise care both as to the quality and quantity of my food, never satisfying my appetite with either eating or drinking (light wines), but always leave the table well able to take more. I never allow my accustomed sleep and rest to be interfered with. I have guarded against extreme fatigue, of excesses of any nature." You will notice how well this agrees with our chapters on air, food, sleep and exercise.

TEMPERATE PEOPLE RECOVER FROM ACCIDENTS QUICKLY.

Cornaro brings one point out in his book very clearly. It is of great importance and has not been given elsewhere in this book. Little did he imagine that 400 years later his experience would be quoted and scattered all through America. He says, in substance: "Even accidents have the power to do but little harm, or cause but little pain, to the followers of the simple life. When I was 70 and driving at high speed one day, my carriage was overturned. I was badly hurt and unable to extricate myself. Head, one arm and leg and body received severe injuries.

Doctors said that at my advanced age these injuries would cause my death within three days. Nevertheless they began to arrange at once for bleeding and purging me. But I was convinced that the healthy condition my body was in would carry me through all right. And I positively refused to be bled or to take any medicine. I allowed them to bandage me up as well as they could and then patiently waited. The result was that I recovered entirely, without suffering any change for the worse. This was what I expected, but it seemed to my doctors nothing less than miraculous." Of course none of us can be sure of avoiding accidents, but those who live in a way to keep at their best, can easily get over almost anything in the way of injury. Remember how wonderfully the Japanese recovered from wounds during their war with Russia. The world had never seen anything like it before. And still long ago Cornaro explained the matter clearly. The little effect that wounds had on the Japanese came largely from their plain, wholesome way of living and the pure blood resulting. This is a point worthy of our closest attention in a country where life is held so cheaply, and accidents are so exceedingly common.

EAT LITTLE IF YOU WANT TO EAT LONG.

Another matter Cornaro brings out with great clearness. You will notice how exactly it accords with the teachings of this book. When he was 78 years old his family and the doctors insisted that he was not eating enough. He did not like to appear obstinate, he says, so he increased the amount of food eaten just two ounces per day. He had long been settled on the kinds that agreed best with him, and on the quantity, but he increased it to please others. The result was that at the end of ten days he became melancholy and choleric, everything annoyed him and he did not know what to do with himself. Then came 35 days of terrible fever. Everyone thought he would surely die, but he didn't, and promptly returned to his abstemious habits, never to

depart from them again. He utters a great proverb when he says: "Whosoever wishes to eat much must eat little." That is eating little lengthens a man's life, and by living a long time he is able to eat a great deal safely.

OII, BLESSED TEMPERATE LIFE, WHICH GUARDS US
AGAINST DISEASE.

Here is another remarkable statement, when we consider when this man lived: "I admit it to be true that those who follow the temperate and more orderly life may, if exposed to some of the diseases, be ailing for a day or two, but never to the extent of producing fever. Neither the revolutions of the heavens or disorders on earth are able to disturb those who follow the temperate life. My spirits are never oppressed by much food. I am always cheerful. Energy is never greater than right after meals. My mind is not less clear for writing immediately after I leave the table than at other times. I am never drowsy. Oh, most blessed and holy temperate life, so profitable to man. It is through thee that I enjoy this beautiful world."

The fourth treatise, written when he was 95, shows no falling off in the enthusiasm and clear-headedness of this wonderful man. While there are many beautiful thoughts in his writings, you have above really about all that is of importance as being connected with the subject of this book. With all the knowledge we have now we ought to be ashamed if we cannot do as well as Cornaro did, and it ought to be quite possible for us to do 25 per cent. better.

FOODS ADVISED BY DOCTOR HAIG.

I think that you will agree with me that the words of Dr. Haig, of London, quoted in this chapter, appear to be backed by

knowledge and experience. They are evidently the words of a student and thinker and experimenter, not mere idle talk. Since the above was written I have been able to get the doctor's views on foods. They have interested me greatly, and perhaps you may like to read them. He is a vegetarian, but does not believe in eating everything in that line by any means. For best results in the way of avoiding all uric acid troubles, or curing them, he advises that we live mostly on cereals, fresh and dried fruits, nuts and the milk products, and drink only water. It seems that the doctor has done much experimenting on himself to get at the truth in this matter. He realizes that the diet is a very simple one, that will not appeal to people generally, and hence his words, quoted above, "To all who dare to follow it." He means, who have the will power to brave public sentiment and practice self-control, knowing the truth, same as Cornaro did. The doctor advises that we do not eat meat, beans and peas. As peanuts belong to the same family with the beans and peas they will have to be dropped also. They are not really nuts, you know. He excludes tea and coffee on the ground that the theine and caffeine in them are practically the same chemically as uric acid. The milk products are butter and cheese. I have told you clearly what I think of butter. I am glad indeed that Dr. Haig has found cheese all right. But, of course, as it is a condensed product, it should be eaten with moderation. In view of Dr. Haig's words, and what is said elsewhere in this book, will it not at least be the wise thing for all readers to eat lightly of meat, eggs, peas, peanuts, etc.? Great good can be done in this way. If you are not ready to exclude all these uric acid forming foods, moderation in the eating of them will be helpful.

COTTAGE CHEESE.

The writer thinks there is no better cheese, and probably no other quite as good as the common cottage or Dutch cheese,

made from sour milk. Separator milk makes a fine quality. Then add cream or butter when you eat it. Such cheese is wholesome and nutritious. It will take the place of lean meat to your advantage. Then the cream or butter supplies the fat you need. But there is more. The cheese contains lactic acid. You know Metchnikoff, of France, is the highest living authority on health matters, or ought to be from the position he occupies. He says the lactic acid of sour milk and butter milk tends to destroy the many poison-producing bacteria which form in the intestines. Thus certain diseases are prevented and life is greatly prolonged. But you know it isn't well to drink butter milk between meals, nor should we drink it at the table. Food should be eaten and chewed. Our advice to you is to eat fruits freely, and the entire wheat grains in some form, and drink enough water. Then eat moderately of good cottage cheese as often as you want it. This is a practical and wholesome way of getting good food, and any lactic acid that may be needed. We can buy cottage cheese now at grocers. Large quantities can be made at creameries, if there is demand for it. I think you will be the gainers by helping to cause a demand, if you cannot make it at home. If you buy cream cheese get that which is uncolored, mild and which has a slightly sour flavor.

CHAPTER X.

FASTS. OPERATIONS. VACCINATION.

LONG FASTS.

I take no stock whatever in the periods of long fasting advocated by some to clean out the body and improve the health. To abstain entirely from food when you are not hungry is sensible. It is the way to keep well and live long. If for any reason you do not particularly care for plain food when you come to the table, wait until you do. Skip a meal. Don't eat just because it is meal time. It is also sensible not to tempt the appetite of a person who is sick. Let them fast, if not real hungry. Often times it may be better not to eat anything anyway for a time, as has been suggested in another chapter. But always continue to drink the usual amount of water, or more. Thus fasting to a certain extent may be helpful. But prolonged fasts, 10, 20 or 30 days, simply to use up the old body and build it up new, to my mind is radically wrong. It is unnatural. That one can do this

way and live through it proves nothing. There is a far safer, better plan. Eat no more from day to day than you really need, not an ounce more. Let it be all proper food. Take plenty of exercise. Thus the old will fast work off and the new take its place in a natural manner. Some good writers and teachers advise going a little farther than this, taking short fasts for a time, say once a week.

SHORT FASTS.

A correspondent says Elizabeth Towne advises 36-hour fasts once a week when eating but twice a day, and asks what I think about such fasting. Well, let me give a few sentences from the statement referred to, so as to be sure we get just what Miss Towne means to teach: "You may put off the day of reckoning with an overloaded stomach and body, but that is all you can do. The death-poison will get you sooner or later. Overeating comes from, first, the false belief that strength is gained from eating; second, the habit of eating so many times a day whether hungry or not; third, the continual tempting of the appetite through variety of dishes. The cure is to eat plain foods, cut out one meal a day, and take 36-hour fasts once a week for, say, four or five months." Notice that these fasts are to continue for only four or five months, and are intended to help nature about cleaning out the accumulation of poison in the system, in connection with eating one less meal a day of plain food. Such fasting will do, along with free water drinking, if you prefer the plan. It will help nature to hurry a cure. One can thus get the "death poison" out of his system without having it get him. But I should presume that Miss Towne intends this fast of an entire day to go with the eating of two ordinary meals other days. I would myself sooner cut down on the other meals a little and continue eating regularly. I can't see much use in overeating, and then fasting to let nature catch up.

DON'T LET THE DEATH-POISON GET YOU, ANYWAY.

Alas, it has got several of our personal friends during the winter. Various names are given by doctors to the symptoms. But in every case the cause has been the same: Poisons accumulated in the body. Nature tries to get rid of them in various ways; burning them by fever in the lungs (pneumonia), working them out through inflammation and throwing off of matter (catarrh and appendicitis, etc.). This excess of poisons in body may come from eating improper food, or too much food, or eating too often, or when not really hungry, breathing impure air, drinking too little water, not sleeping enough, eating and drinking so carelessly that bowels get clogged (constipation) and in other minor ways. And people will go right on paying little attention to these matters, and after a while they get sick. Then they send for a doctor. If he should tell them the exact truth, as I am trying to do, they would probably discharge him and get one who knows enough to give them some medicines and cure them. Alas, this is something no medicine ever did or ever can. If nature is assisted somewhat with pure air, water, temporary fasts, perhaps, sunshine, etc., why the patient gets well. But in some cases the "death-poison" gets him. This is the exact truth. It is a plain statement of facts. Such so-called diseases are preventable. After they start nature can usually save the patient, and will, with proper assistance at once, instead of hindrance. Then some fasting may be of great service.

THE IDEAL LIFE REQUIRES NO FASTING.

When one has his body well cleaned out fasts will **not** be needed, if he or she continues to live properly. One will **not** be sick. He will always feel well. He will come to the table with a good appetite every time. It is an ideal condition. It is at-

tainable, and practical, for quite a few are now living this way, men, women and children, located all over the country, brain workers and muscle users. Captain Diamond, of California, elsewhere referred to, has lived this way for 70 years. Others for a less time. The writer is in direct correspondence with quite a few of these people. A private letter just to hand from the editor of one of the great New York papers says: "I am coming around more and more to your ideas of living. And I must confess, much to the surprise of many of my friends, who feel it necessary to eat great quantities of meat, and stuff themselves generally, that I am usually able to outwork them at almost any kind of a job they care to put up."

With just enough proper food and water, pure air, sleep, etc., there simply cannot be any accumulations of death-poisons in the system. So they cannot "get you." One can do the best work, head or hand, of which he is capable. He eats just enough to make good the waste of tissues and keep up the body heat. However, nature allows us a fair margin. She can and will do a little extra for us on a pinch, but we must not overwhelm her with extra work. When one eats just about enough the fire of life is a clean one. The furnace and flues are not clogged. All the machinery runs like a top. No disease is possible. No fasts are needed. You can keep ideally well. How long one can live God only knows. And such a life is worth living. It is free to all. You can come in at the eleventh hour, but better to start when young. Such a life costs less than the old way. The saving for the women folks is great. There is more time to enjoy life. You can accomplish more, head or hand.

CONCERNING SERIOUS OPERATIONS.

It is my opinion that operations have become altogether too frequent. I think that in about nine cases out of ten the patient

would be better off without the operation than with it. We live 25 miles from a large city. Many people have gone or been taken there to be operated on who were brought back in boxes. I wish I had kept track of the number. People have gone to the hospital for an operation before we knew that anything serious ailed them, and we never saw them again alive. The doctors have said they found him or her in a terrible condition when they got inside, appendix, or kidneys fairly fotten, or something like that. He couldn't have lived anyway. It is a common thing to read or hear that the operation was entirely successful, but the patient had not vitality enough to recover; had waited too long. It is hard for a layman to understand how an operation is successful, except for the pocketbooks of the doctors, when it causes the death of the patient. The report is a common joke about here. Knowing as much as I do along this line, the whole matter seems to me simply awful. I fully believe that in most of the cases sent to the city from our locality proper treatment would have soon restored the patient to health. I believe that many of those who are in their graves might be alive and well today, if simple, natural methods of cure had been made use of faithfully. Again, several prominent physicians have said that as a rule those who are operated on for such troubles and live

NEVER AGAIN ENJOY COMPLETE HEALTH.

This has also been my observation in quite a number of cases. I will give one as an illustration. A clerk in the city with whom we traded for years, was operated on for appendicitis years ago. He has never been his old self since, and never will be. He has never known a really well day since. After a long loss of time he got back in the store. But he was unable to work on his feet, and as a reward for years of faithful service the company gave him work to do at a desk, where he could sit

down. I questioned him closely and found just what I expected, that he had been much troubled with constipation for years before the operation. Right there was the cause of the inflammation in his intestines. But it seemed to be news to him. It would have been easy to have told him in one hour just how to live to prevent all constipation, and then there would have been no excuse for an operation. But that is too simple. There is not money enough in it for the doctors. So he was let go on until he got so bad he was likely to die, then he was rushed to the hospital, cut open and had a big fee to pay, besides losing months of time and not being well now. Oh, I wish I did not have to write about this subject. It is too terrible, if I tell you all, and I would be guilty if I told less. I am personally acquainted with a first-class doctor, who was highly educated in this country and Europe. I have known him all his life. I said to him not long ago: "Don't doctors get about half the fee the patient pays when they take a case to a hospital for an operation?" His reply was, "As much as that, and often two-thirds."

IT HAS BECOME A GREAT SOURCE OF MONEY MAKING TO
MANY DOCTORS.

In a way some of them are honest. They have been educated to this way of doing. But let me tell you facts which I know. I met a classmate in a large city lately. When I asked him how he was getting along, he replied: "Finely; I sent 36 cases to the hospital to be operated on for appendicitis during last month." As this doctor works among the well-to-do, these operations mean a clear profit of somewhere near \$7,000. And in my humble opinion there was no possible excuse in sending more than two or three of these cases to the surgeon. Doesn't this make you shudder? I have known of patients actually forced against their will to go to the operating table, and they

never came back alive. Whatever the fee charged, you may rest assured now that the doctor who takes a patient to a hospital for an operation gets a good slice out of it, usually half to two-thirds. I have other proof along this line, plenty of it. Let me tell you of an even worse matter. I advised a certain patient in a distant State, who had trouble in bowels, constipated, irritation in vicinity of appendix to drink much water, for one thing. The local doctor was bound the patient should go and be operated on. When he heard of the water drinking he positively forbade her drinking any water at all. This was the quickest way of getting her so badly off that she would submit to an operation. I must think that doctor knew that free water drinking would spoil his chance for a large fee. I knew of one case in a city where a woman was seriously troubled with constipation. She took pills often, but still the accumulation of poisons in her system made her so wretched that at last she went to a surgeon, and submitted to an internal examination. He told her there was a tumor inside of her as large as a walnut, that must be cut out. She took a dislike to this man and went to another doctor who makes a specialty of treating stricture in intestines by means of electricity, etc. He put the woman under the influence of chloroform, examined her, and said there was no tumor there whatever, but there was a constricted spot that must be operated on and treated. And further, he said that out of 100 cases that he might have come to him 99 would not be as bad as this one. Now which doctor was right? Can you help the suspicion that both were working to get an operation in their line?

THE FACTS ARE GIVEN YOU SOLELY TO MAKE YOU THINK.

The writer would be guilty if he did not warn you. Quite a few of the best physicians in this country simply will not lend

themselves to this operation fad. For example, C. S. Carr, M. D., Columbus, Ohio, long editor of health and medical journals, a man of long and wide experience, says in *Health*: "It has become the fashion nowadays for the up-to-date doctor to resort to surgery on very slight provocation. If a patient has a pain in his bowels, or an enlargement, the average doctor is inclined to cut in and see what the matter is. Almost any doctor who has graduated since 1890, from a so-called regular college, regards a physician as an old foggy who hesitates to open the peritoneal cavity if anything is the matter there. No doubt many of these surgeons are conscientious in doing so. They are simply following what they have been taught in college. There are a great many deaths in these days as a result of operations for appendicitis. There can be no reasonable doubt that not so many people would have died from this disease if there had been no operations at all. If I were to face appendicitis myself I would rather take the chances of medicinal treatment than to risk myself on the operating table under the care of the best surgeon in the world."

This is clear and right to the point. I could tell you of other doctors of note in this country and across the water, who say practically the same that Dr. Carr does.

HOW TO DO WHEN THERE ARE SYMPTOMS OF APPENDICITIS.

If you live as taught in this book you will have practically no need of a doctor, except in case of accident. We haven't a drop of medicine of any kind in the house. We have not employed a doctor since I began studying these health matters for myself, and do not expect to need one again, unless some accident occurs. But supposing I had lived so improperly as to cause pain and inflammation in bowels at the right-hand lower corner, where the appendix is. I would at once stop eating until

pain was gone. Drink four glasses of pure water at temperature of living room within an hour, then two the next hour and perhaps for two or three hours, then one glass an hour when awake. I would lie on left side and have cool injections used several times a day to wash colon out thoroughly and allay inflammation. This position would allow any accumulations at the corner where the appendix is a chance to come out readily. After washing out colon with water I would have some olive oil injected, enough to reach the appendix. Then I would have cloths wet in hot water put on the outside with hot water bottle over them to keep them hot. In other words, keep bowels wet and hot at point where pain is. Gentle kneading of bowels in a way to help contents along, but not to the point of causing pain, might be helpful. A few hours of such sensible treatment would bring relief, surely, by removing the causes of the trouble. And then I could keep my appendix. Man does not seem to know what it is there for, but nature does. To remove it is setting one's self up as knowing more than the Creator.

ABOUT CURING OTHER SERIOUS TROUBLES, INCLUDING CANCER.

There are many other operations equally as unnecessary as those for appendicitis, as a rule, such as cutting out prostate gland of men, or ovaries of women, or using the knife to remove gall stones. I firmly believe nature will cure a larger proportion of cases, if properly helped, without an operation than with. And I do not except an extreme case, like cancer. I do not believe one who lives properly ever needs to have a cancer, any more than appendicitis. If you want to know what properly is, study this book. It is the best the writer has been able to learn. But now suppose one has a cancer started. What use is it to have it cut out and go on living in the same way, with original causes all remaining? Another cancer will be quite too certain

to come in time. Instead of an operation, if one will at once bring his life onto as wholesome a basis as the writer's is, I believe far more cases of cancer, taken in time, will fade away gradually, or at least stop advancing, than would be cured by the surgeon's knife. The writer is not without experience in aiding suffering people along this line. The results make him strong in his convictions. A dear friend of ours had a cancer come. Went to a hospital and had it cut out. Kept on living just the same and another one came. That has been cut out. A third one has appeared where the surgeons dare not try to cut it out. Then our friend felt that her doom was sealed. But wife took pains to write to the poor woman at once, telling her just how to live in every way, what to eat and drink, saying we were quite certain the cancer could yet be held back harmless for many years, and perhaps during her natural lifetime. In her first letter the woman said she would do exactly as told, and she seemed very hopeful and encouraged.

THEN OLD IDEAS GOT UPPER HAND.

In the next letter she said they could not get clean rain water in the city, and she was taking a new medicine she had heard of, made by a doctor who cured himself of cancer, and it was not expensive. Great God! Are not operations, and a life cut short, and funeral expenses more expensive than house filters or water stills, and simple, plain living? As much as we dread to give her up, it does not seem to be any use to fight against ignorance farther in this case. There is plenty of this subject of operations for a book by itself. But I hope enough has been said to induce you, first, to so live as never to get sick; second, if you are ailing, to depend on helping nature in every possible way, instead of hindering with unnatural cutting and mutilating. Thus may you live longer and save your money. This

refers to serious operations similar to those named. Of course, there are minor operations that are sometimes necessary. And there are times when a good surgeon's aid is needed in some serious case, and he can perhaps save a life when there is really no other possible way. But as compared with the whole number of operations performed now the writer believes such cases are extremely few.

VACCINATION WORSE THAN OPERATIONS.

It is worse because, in my opinion, it never does any good, and often results in serious harm. It is one of the great disgraces of the century, equal to the old ones of bleeding sick people and keeping water from fever patients and dosing folks with calomel until their teeth would fall out. Many of the most intelligent physicians in the whole world today look on this idea of putting poisonous matter into the blood to prevent smallpox as simply awful. Some are killed outright. More are injured. In no single case was one ever prevented from having the disease. This is the condensed truth of the matter, as I firmly believe. No use to say more, as it would take half a dozen books to give the full details. Under no possible circumstances would I permit one of my family to be vaccinated. If they were refused school privileges on this account I would first try hard to get the great majority of the people with me and to put a stop to compulsory vaccination. Failing in that I would move out of the town, or teach the children at home. I simply would not submit to having poisons of the worst kind put in the blood. Again I say that if you will live properly you need never have smallpox, no matter how much exposed, and without any vaccination. If one should have it, and will at once stop all eating, drink water freely, breathe pure air, keep bowels open, etc., nature will soon straighten matters out. It is not a disease to be feared, with proper treatment. Let medicines alone and

assist nature. My father brought me through it when I was a boy, in this way, in those days when people were so alarmed that no soul would come into our yard. Oh, yes, I had been vaccinated, but that did not prevent my having it.

CHAPTER XI.

CARE OF EYES, THROAT, LUNGS AND HAIR

YOU CAN KEEP YOUR EYES AS GOOD AS THE REST OF YOUR BODY.

It would be unpleasant to live to be 100 years old and be blind the last 20 years or so, or have more or less trouble with your eyes for 40 or 50 years. To live long and enjoy life you need to keep your eyes strong and well. And you can, barring accident. It is a simple matter. Get into the habit of taking care of them properly. That is all. The eyes are a part of the body. All parts sympathize with each other and should stand on the same general grade as regards health. Your eyes will slowly fail and make you trouble in some way if your general health is below what it should be. The eyes are nourished by the same blood that feeds other organs. If your organs generally are doing their work well, and you are strong and vigorous, you can so care for your eyes as to keep them strong and vigorous. First see that they are really well fed by pure blood, then take proper care of them. So-called cataract is a common affliction among old people. What is it? Why, simply a gradual deposit, or film, that comes over the eyes, just as a deposit may be allowed to accumulate in arteries, muscles, skin, etc. A proper attention to air, water, sleep, food, exercise, etc., would invaria-

bly prevent it. The prevention would come from the blood being pure and the circulation all through the body being active and free. Do not blame your eyes for being weak, or having this trouble, or that; blame yourself. Perhaps you have not known about these things, but I mean you shall, if you study this book long and hard from beginning to end.

SPECIAL DIRECTIONS FOR CARE OF EYES.

Now we will suppose you are living about in accordance with instructions in other chapters of this little book. A few special directions about caring for your eyes may be helpful. Every one of them will be based on simple common sense. You could think them out just as well as I, if you had time. Do not sit near by and facing a hot stove, or grate. The sensitive eyes are easily injured by strong radiated heat striking them and heating and drying them unduly. Never sit or stand, while reading or working, facing the source of light. It is always bad for your eyes. Let the light from window, lamp, gas, or whatever it may be, come from behind you and fall on your book, or work, or light up the space around so you can see readily. Avoid a side light, even, if you can. Face a side of room that will not reflect light into your eyes strongly. Do not depend on shading a light in front of you. Turn around so light can come from behind you and gently and evenly light the space about you. For reading I find a hanging lamp, that can be pulled down just to the right point back of and above shoulder, ideal. It is the same for work wife may do sitting down. At the dining table I avoid facing a window. But when the hanging lamps are lighted, over our table, we must face the light. But we use oil lamps, with no under shadow, and no excessive brightness at one point, rather an even distribution of light all about.

THE LIGHT IS SOFT AND EASY ON THE EYES.

I know of nothing else going that is as good. I simply will not use any of the dazzling white lights, such as come from the use of gas or gasoline with mantle burners. I know they light a room brilliantly. But they are injurious to the eyes invariably. We are abundantly able to have anything we want in the light line. It is not the cost that influences us. No, it is the good of our precious eyes. So we have a gentle, soft, natural light, as safe as daylight and abundant in volume from the latest improved hanging oil lamps. At night let your bed room be dark. Never leave a light burning in the room. Never sleep so your eyes will face a window when you awaken. It is best to have the windows back of your bed, or at least on one side. When outdoors do not shade your eyes from the air by wearing glasses, or a veil, if you can get along without. The fresh air coming directly against your eyes is natural and healthful. Of course, they should be protected against extreme cutting winds and from much dust. But ordinary fresh air in gentle motion can do only good. A soft hat with a wide brim, slightly turned down, is usually a good thing. The eyes can thus be protected somewhat from the direct rays of the sun.

THE USE OF GLASSES.

I think the need for them is largely the result of carelessness in using the eyes and in letting the general health run down somewhat. I believe if I were back to 40 years old I would so live as to not have any use for glasses. But, before I learned how to live my eyes got weak, like the rest of my body, and I had to have glasses, I supposed then. I knew nothing about any other way. I think it is eight years ago that I went to the best oculist in the city and had glasses changed. In a year I had to

go again and get stronger lenses. He made the remark, after testing my eyes, that they were failing fast. And it was true. That remark woke me up thoroughly. I had three pairs of glasses fitted then, one for reading, one for desk work and to wear at dining table, and one for use when speaking in a large hall. And now please notice: None of these glasses have been changed since. And I can see just exactly as well with them as ever; I sometimes think a little better. What does this mean? Why, that one can stop the eyes from further decline. But, alas, it is not so easy to set them back as good as ever again. Perhaps this can be done. I do not know. Do not understand me to say it cannot be. From this experience I feel certain that if I could have begun in time I could have kept my eyes as good as they were when I was young. As it is, I do not expect the oculist will get any more dollars from me.

DO NOT LET YOUR EYES RUN DOWN.

Dear friends, your eyes need not fail, any more than your stomach, or heart, or lungs. If they do it is your fault. You have not fed them and used them properly. Nothing is more precious and worth keeping than eyesight. Let me urge you to begin at once to systematically take care of your eyes. Use them freely, but under proper conditions. Never strain them trying to work or read when they are tired, or it is too dark. Stop at once, and if they feel badly bathe them in cool water, not hot, and sit down facing the dark side of room for a few minutes and rest them. If you are living rightly and will make use of these simple precautions given in this chapter you can soon have strong eyes and keep them good through a long life. If your eyes are weak now and you want to do a little extra to help them up, try the following. There cannot be anything better: Pare finger nails closely. Then dip ends of one finger on each hand

in pure olive oil. Then, standing before a mirror, eyes open, rub ends of fingers along lower lid of each eye at same time, from nose out, gently, over and over. Let the ends of fingers press against bony socket, not much against eyeball. Close upper lids and treat them in the same way. Three to five minutes twice a day will be enough. Be sure first that you are so living as to have pure blood. Then this will help your eyes invariably, because it will draw more blood than usual to them. The blood vessels are in the lids mostly.

Now, I know there are some things in this chapter different from what you have generally been taught. For example, bathing in cool water and exposing weak eyes to fresh air. But do not they appeal to your good sense? Use your eyes naturally and not baby them, if you want to keep them strong. An aged sister wrote me lately that cataracts were growing over her eyes and a specialist told her not to use them much, so probably this would be her last letter to me, written by her own hand. I wrote her at once to continue the use of them right along, moderately, with proper care. Then live in fresh air, drink more distilled water, eat very sparingly of proper food only, take plenty of sleep, etc., and the trouble could be stopped at once from getting worse, and probably could be driven away entirely in due time. To follow the doctor's directions would give him a job sooner of trying to remove the cataracts, which may and may not be successful. I prefer removing the causes, so nature can end the trouble without risk.

RESULT OF BAD LIGHTING IN SCHOOL HOUSES.

The superintendent's annual report, issued in 1908, shows that over 32 per cent. of the school children of Cleveland have defective eyesight. Much of this trouble he says comes from improper lighting in old school buildings. In some of the schools

he says the eyes of 71 per cent. of the children are injured by these bad lighting conditions. Are not these rather startling facts? And still many people go on carelessly, without looking into and correcting these wrong conditions, and let the little ones suffer, not able to do their best at their studies, pay out money for doctors and for glasses, and some of the children eventually become blind. Look to this matter, friends, in the rooms where your children study. Do it at once. Prevention is far better than trying to cure later. The main trouble in school houses is that the scholars face the windows through which light comes in, or there is not light enough let in. One sometimes sees these wrong conditions in recitation rooms of the largest universities. There was lack of thought in the planning of the buildings. Public halls are often wrongly constructed. Don't you know how hard it is to sit and face large windows through which much light is coming? I have spoken in such halls when people insisted on having the shades pulled down, although it made the room quite dark. And I have known them to have the chairs turned so as to have their backs to the light, leaving me to face it. In some extreme cases I have stood on one side of hall, because I simply could not endure looking directly at the strong light. All these matters are worthy of your careful attention, if you want to preserve your eyesight good until the end. Think what life would be without it and keep your eyes strong. Trouble with them does not come by chance. There are preventable causes.

BREATHE THROUGH YOUR NOSE.—DUST IS TAKEN OUT OF AIR.

A majority of people breathe through the mouth. The writer has sat in a hotel office in St. Paul and watched passersby hour after hour when it was intensely cold. About two-thirds of those who went by drew the cold air into the lungs and sent

it out in a cloud of steam through the open mouth. Now, nature has provided a nose for us to breathe through. Inside of it she has placed many minute hairs to filter out any dust that may be in the air. And then the mucous membrane lining of the nostrils is kept moist by nature. This helps to catch the dust out of the air that goes in. By means of this moist surface and the hairs any ordinary amount of dust is removed from the air as it is passing in. Then the accumulation of dust after it dries on to the mucous membrane is easily removed from the nose. It naturally works out. And we can clean it out readily. If you feel any doubts about these hairs catching dust, just take a wet wash cloth and put over the end of you finger and wipe out nose after handling coal and keeping your mouth closed. The cloth will come out black. After spending a day in a city where soft coal is burned you will find your nose in the same condition, if you breathe through it. Now, it is injurious to have this dust get into the lungs, so nature has arranged a way for us to keep it out, unless there is an excessive amount in the air. The air in a house where carpets are used is generally more or less dusty. One who breathes only through the nose can keep much of this from getting to the lungs, practically all of it, if warming and ventilating are arranged something as described in this book.

AIR IS WARMED AND MOISTENED BY NOSE BREATHING.

You can readily see that very cold air should not be taken directly into the lungs. It must chill them to their injury, same as it does the stomach to swallow ice cream hastily, or to drink ice water. Nature has carefully arranged the air passages through the nose to the lungs winding, crooked and long and small, so cold air passing in that way gets warmed pretty well towards body heat before it reaches the delicate lungs. Thus man can breathe at a temperature below zero without any injury

to lungs, if the air enters the body in the way nature planned for it. Then there is more of this. Whenever cold air is warmed it naturally requires more moisture to be held in suspension at once. That is, natural warm air always contains more water than natural cold air. Thus cold air passing into your lungs needs to have moisture added to every single breath as it passes in for perfect results. It needs it just the same and for the same reason that cold air going through our furnace needs to pass through our humidifiers after it is warmed, so it can at once take up needed moisture. And nature has put a humidifier in each of your nostrils to moisten the air that enters, as it gets warmed up on its way in. Then when it reaches the lungs it is in a more natural condition. This, of course, for cold weather when air one breathes is not right. This natural humidifier is the constantly moistened mucous membrane lining. To make it work the best it can you need to drink plenty of water, winter as well as summer. These breathing arrangements are wonderful indeed. Breathe through your nose and keep it clean and nature will attend quite well to the dust, overdryness and cold of the air. But for perfect results we must not put too much on her. We should have as little dust in air of our homes as we can, and have the air well supplied with moisture.

DANGER FROM MOUTH BREATHING.

When one breathes through the mouth in cold weather how is it? The passage for air is shorter and more direct. Thus on its way in it is not warmed nearly as much. And this direct entering of cold air is irritating to the throat as well as to the lungs. And then there are no hairs to catch the dust. The moisture of throat and bronchial tubes will catch much of it, but only for it to go on eventually into the stomach or lungs. It does not come out so as to do no harm, as when one breathes

through the nose. As there is dust in the air usually in summer there are excellent physiological reasons for breathing through the nose all the time, you see. Many throat and lung troubles come from the irritation caused by dust and overdryness in air breathed. And the matter is invariably made worse if the dust and overdry air is breathed through the mouth. And then it is not natural for the throat to have to furnish so much moisture to the air, and if it has to do it, it gets overdry and irritated. Thus throat troubles may begin. You may ask why we are able to breathe through the mouth, if it is not the best way. Well, nature looks out ahead. Why have we two eyes, two ears, two nostrils, two lungs, two kidneys, etc.? In case of any trouble in nose we can breathe through the mouth to save life. And then, as the passage is more direct and larger through the mouth, we can rush air to the lungs faster in case of great exertion, thus preventing injury from lack of enough oxygen reaching the blood. But for general use the slower movement of air through the nostrils is evidently always better. Nature has looked out for everything wonderfully well. All we need to do is to realize how perfect her work is and make the best possible use of it.

HOW TO KEEP MOUTH SHUT WHEN ASLEEP.

If you have trouble from mouth dropping open when you are asleep, lying on your back, arrange some way to stop it. Usually when one is careful to breathe only through the nose during the day, has formed the habit, and goes to sleep with the firm determination not to have mouth get open during the night, it will not. That part of the mind which never sleeps, which keeps heart beating, breathing going on, etc., will, if trusted, and as the result of strong auto-suggestion, keep the mouth shut. However, one can easily make a harness to put around the head

which will hold the mouth shut. A strong cloth band put under jaw and over top of head, with another connected band from side to side around back of head, will do the business. These contrivances are made and sold, but it is a very easy matter to make one for yourself, once you have the idea. If for any reason you cannot breathe through your nose, better consult a good surgeon at once. And see to your children and be sure there is no obstruction in their noses. Then teach them the right way to breathe, as well as to use their eyes, eat, etc.

WHY MEN GET BALD.

Why does the hair on the top of a man's head so often get thin when he is perhaps no more than middle-aged? Why are so many bald? There are reasons. First, if one so lives as to be somewhat unhealthy the hair will show it as well as the eyes and the rest of the body. The hair is a part of the body. It will fade, look unhealthy and come out more or less. But a great cause of thin hair and baldness with man is the wearing of tight-fitting hats so much, and especially stiff hats. This shuts off partly the circulation of blood to the scalp and the result is the hair is not properly fed. Again, hair grows on our heads for a purpose. It is intended to protect the head. When we fail to use it thus and need it, nature takes it away. Use is the great law of life. The hair is no exception to this law. How many bald-headed women did you ever see? Their hats sit on top of their heads and partially protect without shutting off circulation of blood. They still have some use for hair. But notice how many men there are who have bare heads just under their hats, with a fringe of hair just down below them behind. Nature retains the covering down there because it is still needed. Nothing could be plainer, both why there is hair there and why there is none on top of the head. Need all your hair, let it be freely

exposed to light and weather, with nothing tight to restrict the flow of blood to the roots, and have pure blood in your arteries, and you need not get bald. If you intend to so live as to stay on earth a century or more it would be pleasanter to retain your hair, wouldn't it? And still we must wear hats some.

HOW I CARE FOR MY HAIR.

Allow me to tell you just how I do, and have for some years. It is the best I know. The trouble is, I did not begin until hair was thin, almost gone on top of head. But I have held onto it pretty well during the last ten years. Every morning when I get ready to bathe I brush hair vigorously, using a hair brush with long, soft bristles. They are about one and one-half inches long. This will brush scalp thoroughly, and still not injure it. While brushing with one hand I work the hair with fingers of other hand, and the scalp, too, a sort of massage. Occasionally the hair is grasped between the fingers and pulled upwards. Next, head is bathed thoroughly in cold water, leaning over tub, using a large sponge. This when I begin to take my cold bath. Thus blood is drawn to the head very freely. And from proper living I have good blood to go there. This is especially important. Then I never wear a hat when it can be left off reasonably. Have studied to carry out this matter. And I always wear light, soft hats, not stiff, hard ones. I never wear a hat in street cars or trains. I nearly always take it off when in a store. I run around a good deal outdoors without a hat. Of course, if sun shines hot I need it. When walking, if not really needed, I carry it in my hand. If it is really needed I loosen it up all I can by tipping up the front. I suppose some people have thought me a bit off in my upper story when they saw me out walking bareheaded, but I was showing nature that I still had some use for hair and wanted it. And she has said to me: "Old

boy, you are a little late, but I will try and help you to keep what you have a spell longer." Oh, how much easier to go down hill than up; how much better prevention than attempt to cure after trouble comes. When you once get shiny bald, or hair snowy white, you will probably have to stay so. The matter has gone too far. The unpardonable sin against nature has been committed. If we can interest young men in systematically caring for their hair they can largely prevent the loss of a natural head covering, and at least greatly retard the coming of silvery locks.

HOW TO KEEP HEAD ENTIRELY FREE FROM DANDRUFF.

How often one sees dandruff on a man's coat collar. Doesn't look nice, does it? Notice him brushing it off every little while with his hand. He is ashamed of it. But likely he does not know how to prevent having any. It is easy. Just do regularly what is told you above. That is all. Do not buy any medicine and put on. It would be like putting ointment on the place where there was a sliver in your hand, instead of picking out the sliver. I once saw a great big two-horse dray load of somebody's dandruff cure being unloaded in front of a city drug store. I am sorry for the poor mortals who buy it. Wash, brush, purify with sun and air, and keep your blood clean, and soon any dandruff on your collar will be among the things of the past. Dandruff was one of the trials of my life when I used to go to see the girls. And later, at Institutes, I used to be greatly ashamed of the little white specks on my collar. But, alas, no one had told me how to keep from having them, and I had not time to think it out. But no one has seen a particle of dandruff on my coat collar for some eight years past, and no one ever will see any again. It is no trouble to take care of my hair, as it has become a regular and enjoyable habit. And I am greatly pleased, as you may know, with the result.

ABOUT GRAY HAIR.

I believe the cause of hair turning gray is largely because of unwholesome habits of life. Much study has been given to this point. It seems to be an inherited matter sometimes. I do not know. It is hard to tell just how much inheritance has to do with it, and how much the fact that children are likely to live a good deal as their parents did. We see some men of 75 or 80 with hair about as dark as it ever was. And then there are others much younger whose locks are snowy white. I do not think any living man can tell just why this is so. But it looks to me as though the first named men happened to live a more natural, healthful life in some way. At any rate the best I can tell you now is to try this way of living, if you want to ward off this sign of old age. We know that sickness tends to hasten the turning of hair gray. It certainly seems as though ideal health must help about keeping it the natural color. Pure blood, circulating with entire freedom through the minute capillaries of scalp should keep the hair natural. I believe it will. But once it has turned white, once the coloring matter has got into the habit of passing off some other way, I am not sure that nature can be induced to turn it back to the original color. But of one thing I do feel certain. If you are often talking and thinking about becoming gray early, because your father did, you will rarely be disappointed. Our thoughts have much to do with the renewing of all parts of the body. But we will consider this general subject more fully in another chapter. But now, if your hair is not gray yet, let the fact that some aged people do carry dark hair to their graves encourage you to live properly and take good care of yours, and there are strong reasons for believing you can do the same. At any rate, this is the very best advice I can give you.

CHAPTER XII.

THE TRUTH TOLD A LITTLE MORE STRONGLY.

PAT'S PHILOSOPHY.

A certain Irishman came to this country and went to work for a farmer. After a while he got his employer to write a letter home for him. Among other things he said: "Tell them I have meat to eat once a day." "Why, Pat," said the farmer, "you know you have meat three times a day." "Yes, yes," said Pat, "that is true, but it is better not to tell them more than they will believe." Now, most of this book has been written somewhat in accordance with Pat's philosophy. And the idea is a sound one. It is better to be rather conservative in one's statements when the whole truth is a little beyond common practices and beliefs. But there are some who have already worked their way along lines taught in these pages as far or farther than the writer has. A few of these have written for the very first copies of this book. So perhaps I may be allowed to write one chapter without pulling in on the reins any. Dear reader, if you have found in the rest of the book all you can believe, kindly stop right here and do not read the following.

YOUR BODY IS CONTINUALLY DYING AND BEING RENEWED.

The body is constantly dying off by atoms and being rebuilt again. You cannot move hand or foot, chew, breathe or wink without using up some minute particles of muscular tissue. The blood, circulating to every part of the body, takes up the used up, dead, waste material and carries it to the eliminating organs that pass it out of the body, or should do so. It is really dead flesh, only the particles are exceedingly minute. The blood which flows through one's veins, the dark colored blood, is always more or less loaded with this waste. After this blood is purified, on the return trip through the arteries, brighter in color, it is carrying materials to every part of the body for building up, to take the place of the dead tissue which was carried out. Fifty years ago we were taught that the entire body was renewed in this way once in seven years; that at the end of that time one had an absolutely new body. Now it is said that muscles much used are entirely replaced perhaps in two or three months. And quite likely an active person, whose exercise is fairly general, renews the entire body in about a year,

SIMPLE ILLUSTRATIONS.

You can see plain samples of this process in the finger nails and hair. The nails are steadily growing out. In a few months no part of the nails you have now will be on your fingers. The old will be all gone and new ones in their places. And a man's hair is being cut off from time to time, so that at the end of a year probably all that he has on his head will be new. A woman's hair changes by coming out. If she will keep every hair that leaves her head for a year she will see that constant change is going on in her hair, same as on a man's head. And this same

law of change is working in every part of the body, in flesh, bones and all. We used to be taught that the teeth were not subject to this law of renewal. But two reliable dentists have told me that by changing the diet of persons who had poor, soft teeth they had made their teeth much harder and sounder within a few months. It is not so easy to see the working of this law of change in these last mentioned cases, but it goes on just the same. Your lungs, heart, kidneys, skin, everything about you, is steadily being renewed. Little particles of you are dying off every instant and nature is building you over anew. This is a vitally important matter to those who understand the power this wonderful process gives them.

A MARVELOUS MACHINE WHICH REPAIRS ITSELF.

Perhaps you are wondering what all this has to do with keeping well and living long. I answer at once, a great deal, far more than has been realized until quite lately. Now, supposing that you supply nature with proper materials and conditions for renewing the body, what is to hinder her keeping you repaired and renewed in a reasonably perfect condition for 100 years or more? Oh, yes, I know what you have been taught and perhaps think. But won't you just drop it all for a time and consider my question? Am I not right when I say there is nothing whatever to hinder, except accident, if one has the knowledge and self-control enough? Occasionally a person has hit on right ways of living nearly enough to reach the century mark. At the time of taking the last census there were 3,504 persons in the United States who were 100 years old, or more. But the great mass of people have not given nature just about enough of proper materials to rebuild with, and gradually their bodies have become infirm until their organs have been unable longer to do their proper work and death has resulted anywhere along from childhood on, on the average

LONG BEFORE THERE WAS ANY NEED OF IT.

If you will accept the known facts in the case you cannot possibly get around this truthful conclusion. If you really want to keep well and live long, you can. God intended you should. I dare not say how long. The human body is the most wonderful piece of mechanism in all the world. And why not? As I must look at the matter the soul is a little spark of the Infinite. Why should not the body, the earthly home of the soul, be marvelous in its possibilities? The human body has the power within it to repair itself perfectly. How long it can keep up this work, if man does his full part, God only knows. But verily knowledge is power. But little has been understood about this matter in the past. Gradually wonderful possibilities are dawning upon us. We begin to see that we have ignorantly and carelessly, by violating natural laws, brought on old age, prematurely at least, as a rule. We can keep it off very much longer beyond any question.

A DISGRACE TO BE SICK.

As for ill health, the time will come when people will be ashamed to have it known that they are sick. Yes, I am entirely certain of this. All sickness comes from the violating of natural laws. There is a cause for it always in our ways of living, obscure sometimes to our present knowledge, but a cause always which can be removed. When these matters become well known to all, people will be ashamed of ill health. Doubtless you would not any of you want it known now if you should get the itch, or lice on your person. You will be just as much ashamed of colds, rheumatism, headaches, catarrh, etc., after a while. All of these are easily preventable now. When everyone knows plainly the real causes of such troubles they will not

be parading them before everybody. They will rather try to hide them until they can cure themselves. I assure you that if I should so live as to bring on again a cold, rheumatism or catarrh, I should care more for the shame of it than for the ill itself. But I am in no danger; have enjoyed the right way too long. Eventually we shall do away with the more serious diseases in the same way. Having knowledge of nature's simple laws we only need to practice self-control.

BODY BUILDING IS UNDER YOUR CONTROL.

There is more of this renewing of the body. I spoke of nature's doing the work. Correct, but man has a hand in the matter. Man is very largely at least the architect of his own body building. This idea is not new. It is as old as the Bible. We read: "As he thinketh in his heart, so is he." Rest assured that your body will be built over very much in accordance with your real thoughts and beliefs. If you are ailing and keep dwelling on the matter, keep talking it over and over to anyone who will listen, thus keeping the subject almost constantly in your mind, and having wrong ideas of the whole matter, the new body particles that are added will be in accordance with your thoughts. Right here you can see the great value of a cheerful doctor, and nurse, too, who comes in with an air of optimism, assuring you that you are looking better and will soon be well. If you have faith in him, and believe fully what he says, it will be worth more to you than all the drugs on earth. Unsound materials in your body will rapidly be renewed with better ones, and ere long the sound atoms will be in the ascendancy again. And, my dear people, having your body governed by right thoughts is the only way you can make yourselves ideally well when you are badly diseased. •

THE BODY MUST BE BUILT OVER.

The unsound must be worked off. The new must be made of proper air, water, food, etc., and under control of a proper condition of your mind. A wrong mental attitude will hold you along in just about your old condition. It is all very simple. First you need to know the truth and be filled with it. Then let it be your guiding star. Truth, mind you, absolute truth, nothing else. This is not Christian Science, but Christian sense. You should often think over how the body is being renewed constantly. Give it proper materials. Do not dare to ask God's blessing on things which you know are not fit to put in it. Do your part completely, then you can claim the reward. Let your mind always be filled with this spirit. Think that you have done right, absolutely, and there can be no other result than the one you desire, and there will not be. But remember, you must have full faith, never wavering, and that "Faith without works is dead."

OUR TWO MINDS.

We have what may be called a voluntary and an involuntary mind. We are not conscious of the action of the involuntary mind, but it controls the functions of every organ in the body. It keeps things running while the voluntary mind is asleep. It has charge of all new body building. But you can influence, yes, direct, this involuntary mind by means of the thoughts in your voluntary mind. As a simple illustration, you think that you want your finger to bend up and instantly the involuntary mind causes it to bend. Clear, strong, positive thoughts of yours will thus be carried out by the mind that never sleeps. You can see something more of this perhaps in your own experience. You can go to sleep with the thought fixed

strongly in your mind that you want to awaken at an unusual hour, depending on your involuntary mind to do it, and it will. During 21 years of constant travel winters, hotel clerks have often failed to call me for early trains, but never once did I get left. Quite a few people have made use of this power until they can depend on it. Right here you must see that this involuntary mind, as I call it, is Infinite. You can use any other name for it you please, such as subjective mind, immortal mind, or anything else. Could your voluntary or mortal mind tell the time in the darkness of night? Many a time I have awakened feeling that it was time to get up, perhaps in the middle of night, looked at my watch after striking a match, and found it was just time. And from the fact that it never fails to keep you breathing all right in health you can see that the involuntary mind can renew your body, as directed, once it learns just what you want, clearly, and that you are depending on it.

NEVER KEEP YOUR MIND FULL OF WHAT YOU DO NOT WANT.

To go a little farther into this subject, you should forever stop all thinking of old age coming on. Never say, or think, "I cannot do as much as I once could, cannot stand as much, am getting old," etc. Do not be thinking of an age when your days will be about numbered. If your mind is full enough of this kind of ideas, you will not have long to wait. Do not stop growing. When you do you begin to die. Keep up with the times, be progressive, be of use in the world, if you want to live. If you are anxious to die before long, get ready for it, everything arranged, a lot in the cemetery, a monument put up. Why, if you keep your mind full enough of the near approaching end you can almost have the year cut on that stone. Your involuntary mind will not fail to shape matters quite in accordance with your strong, fixed thoughts.

DO KEEP MIND FULL OF WHAT YOU DESIRE.

We had a phaeton, bought years ago, low down and very easy to get into, suggestive of declining years. Last year it was disposed of and we bought two as high, piano box, narrow seated and fancy rubber-tired rigs as any young man can drive. And the running gear of one of them is painted a bright red, too. And then we have long, straight whips in the sockets, although our driving horse has never yet been touched with one. But it looks young to have all such things, you know. Thus are we sending thoughts to our involuntary minds such as we wish to have carried out. Six years ago the writer, then 60 years old, bought a typewriter. People told him that at his age he never could get used to using it. And he was kept from getting one for some years by such thoughts. But they were all nonsense. His brain is not so set with mineral matter yet that he cannot change, nor does he ever intend to have it get so, thanks to pure water, air and food. I have long done most of my writing on the machine, and enjoy it. But I write some short letters and outline articles with a pen, for a change. The simple truth is that I am younger today in every way than I was when I bought that writing machine, except my hair. I am doing my part so far as I know in regard to that, and leaving the result with nature. In 1907 we bought a Melodant Angelus piano player. I am delighted to be able to play the music of the great composers as well as now and then a rollicking ragtime piece, and The Holy City when the minister comes. A visitor, James W. Allison, Cleveland, O., said, after seeing how carried away I was with the music,

“WHY, TERRY, IT WILL LENGTHEN YOUR DAYS.”

Surely, as well as make them more pleasant. Let us see, that is about the title of this book, is it not? Oh, I have a large

number of nice things to live for. Two-thirds of a century has gone, but bless your dear hearts, Terry intends to have a fine time during the other third. And if you think he is planning to die off, then you are mightily mistaken. Why, he has a Premo Supreme camera, best made on earth, with the very best lens in it, and he has need of many years to work up in that line. Writing for *The Practical Farmer* weekly, answering hundreds of kind letters and working at this book has prevented his having any time for pictures lately, but never mind, there is no end of time ahead. I might tell you of many more such things, but you have enough to show you that this book all through reflects my practice.

It may please you to learn that my long-time friend (notice that I do not call him "old friend"), A. I. Root and myself have arranged to spend the days together when we reach the hundred-year mark. He and his wife will have, when they come to our house to celebrate my birthday, just wheat, butter, fruits and a little bit of maple syrup to eat, nothing else. We are not going to lead them astray. We will have about the same, with a little honey in place of syrup, when we help him celebrate. By that time it won't be fashionable to feed company on poisonous, life-shortening articles that you do not eat yourself. By the way, I really ought to pay brother Root something for insisting, early and late, that I write this book. You see so doing has kept my mind filled with these proper ideas all winter long, the best thing in the world for me. I hope my kind friend may get as much good out of reading them as I have from the writing.

DON'T DIE AT THE TOP FIRST.

There are people who may say they do not care to live to be very old, and perhaps lose their minds, thus becoming a great burden on their friends. There is no need of getting in this

condition. It is as easy to keep the mental faculties clear and strong as it is to keep the body well. Of course, if you intend to live long you will want to keep a sound mind in your sound body. To do so you have but to remember that the law of life is use. It applies to the brains as well as to every other part of the body. Keep your mind busy, thinking, growing, advancing, same as your body. But do not overwork either one. Reasonable use daily, in a systematic way, is what is needed. Do not give up your regular business, to do practically nothing, because you are getting along in years. Keep more help, not being a slave to your work, but keep at it. Hold the reins and do the thinking and planning for advancement. Quite a few farmers are moving to town, intending to take it easy and live on their rent money and interest. Don't do it. It is the way to rust out mentally and physically, unless you get interested in some new line of work.

A lawyer friend of ours passed away lately, more than 80 years old. He gave up his office work practically some ten years ago. He said to me in regard to the matter: "I have property enough, Terry. And I think it better not to wear myself out trying to get more, but rather to save my strength to take care of what I have and to be of service to my family." This was partly a wrong idea, but he carried it out. For years before he died his mind was a blank, although his body was in excellent condition. He had always cared for that. Of course, his condition was a terrible affliction for his family to bear. And further, it was the one condition that I know this man feared, for he told me so.

SEE THE AWFUL RESULT OF WRONG THINKING.

The mistake he made I do not want any of you to make. He should have kept his office, going to it daily, and regularly,

deeply interested in helping others from his long experience, writing papers, advising, etc., in many cases without any charges, where payment was a burden. He should have lived to do all the good he possibly could in the world. I firmly believe that by so doing his mind might have been kept as sound as his body. By all means let farmers remain on their places as they get along in years, fixing them up, improving in every line, as they had not the time or means to do at first, but arranging for younger shoulders to take the heaviest burden of the work, so they may enjoy life more, as they should do. This will be far better for the farms than it is to have them rented, and just as much better for owners. Instead of building a better home in town, build it on the old place, the scene of your struggles and victory. Spend part of your time seeing how many improvements you can work into it. If you do not know how, learn. It is the way to keep well, mentally and physically. I heartily pity the poor man who gets to town and has only to sit around and wait for the end to come.

A DELICATE MATTER, BUT OF GREAT IMPORTANCE.

One subject has not been touched on yet which I should feel guilty to omit. It is a delicate one, but of vital importance to those who wish to keep well, do the best work in life that they are capable of, and do it long. It is the but too common habit of wasting vitality seriously by excesses in sexual matters. The sexual and the nervous systems are at least very closely related, if not essentially one. With undue excesses in the former line there will gradually come trouble in the latter. The reports that have come to us in our mail, from young people and from middle-aged married men and women, tell stories in this line sometimes that make one shudder. You may follow the other teachings of this book ever so carefully, and

continue to seriously drain your vital forces in this way, and it is not likely that you will be able to improve much. With moderation in eating and working, let there be an equal care to be moderate in this line. Numbers of men have written us privately that they knew this was their weak point; was what was holding them back from the best of health. And, pardon me, but

I DARE NOT WITHHOLD THE TRUTH.

We have had letters from ailing married women, reporting how much better they were when away from home for some weeks, and telling plainly why. Then they come home and get worse again. Thank God, it is in our power to tell those who desire to know how they can help matters in this line very much. Draw in on the amount of meat, eggs, etc., that you eat. Learn to live largely on plain grain foods, fruits and vegetables. You can live longer and reduce abnormal desires decidedly. And, as you value their moral character, do not let the growing children eat much, if any, meat. It will surely stimulate them to precociousness in this line. You may not notice, or think about it until shame and sorrow come to your home. Case after case of this kind has been reported to us. And we have privately assisted young people to get right whose parents were in total ignorance of any need of it.

We have never yet blamed the boys; we could not, as they were given tea and coffee, meats and spices, and abnormal conditions were brought on, which grown men have reported to us that they could not resist. But we have patiently helped in every case, when they have come to us, by telling them how largely to remove the cause. How I wish it were allowable to print particulars of some of the worst cases, and letters filled with thankfulness that have come later. In bringing up chil-

dren, in preaching to grown people, it is not all to exhort them to do right. It should be partly a matter of feeding and caring for them so that they will not be led wrong.

A WISE DOCTOR'S ADVICE.

A farmer friend was in an exceedingly critical condition. He was taken to a city to be treated by a first-class specialist. One of the things this doctor did was to give this man's friends a list of the simple articles of food which he might eat, if he was hungry for them. And then to make the matter doubly sure he gave them another list of things which he must not eat under any circumstances. The doctor explained the matter by saying the man actually had not another particle of strength to spare, if they wanted him to pull through; that he must not use up the least bit in trying to digest or work out any but the plainest and most nutritious of foods, which would do him the most good at the least possible expenditure of his vital power. Can any of you fail to see that this was splendid advice? Very well. And now, will you please tell me why the advice of this physician to his patient was not the very best he could have had for his everyday use before he got into a desperate condition? I think it was, and that the time has come when thinking people should pay more attention to such matters.

WHY EVER TREAT DIGESTIVE ORGANS SO AS TO WASTE STRENGTH?

For example, why eat coarse vegetables, the nutrition in which is hardly worth the strength it will take to work them through the body, simply because one can do so and live along

after a fashion? You can eat better foods and save your strength for business. Again, why eat any starchy foods that have had fat baked or cooked or fried into them, for the digestive organs to wrestle with, getting little good in return for the strength expended? One can easily eat the same starch in various forms, and the fats, too, in a way that will give him the full benefit of both. And then why continue to eat a great variety of foods at a meal, some of which do not agree together, like milk and coarse vegetables, and which may make trouble in our bodies, reducing our ambition, our ability to do our best, making us dull and irritable by day, and disturbing our sleep at night, so we get up hardly more rested than when we went to bed? I know it is the fashion to do these things, it is the common way of doing.

LATE EXPERIENCE IN GETTING MORE STRENGTH FOR WORK.

For six years past in particular the writer has been working over this very problem. It was not wise to make sudden changes anyway. And then he did not know how far he could safely, or ought to go in this direction. Year by year he has gotten nearer to the law laid down for the patient who had no strength to waste. His success has been as much of a surprise to himself as it can be to you. He finds beyond any possible question that he can save strength in this way and have much more for work. And the plan is entirely practical. He sees now that he hardly knew anything in this line six years ago; was just beginning to get hold of right ideas. The doctor mentioned above should, and doubtless did, lay down one more law, viz., that the patient should not eat one ounce more food than his system needed and could handle to the best advantage. This is an even harder rule to live up to than is the first one. But it is equally important. Too much good food overtaxes the digestive organs, uses up strength, wastes it, just as much as does the eating of

improper, innutritious food. By month after month of patiently carried out experiments the writer has worked this out for himself. In fact, he has learned something since the first part of this little book was written.

LIVING ON TWELVE OUNCES OF DRY MATTER PER DAY.

BREAKFAST.—During the past few months he has desired every particle of strength he could possibly get for the writing of these pages, in addition to his regular work, which had been considered about enough. To this end he has cut down the food supply as never before; has been exceedingly particular to have every ounce eaten food that would give perfect results, to the very best of his **knowledge**. The amount of raw, flaked wheat eaten for breakfast has been cut down from two ounces or more to one and one-half ounces, eaten with half an ounce of butter, or olive oil. Then about one and one-quarter pounds of fruit has been eaten. Taking out the water and waste in fruit, skins, pits, etc., he has had between two and three ounces of dry matter in the fruits. Including that in the wheat and butter the total dry matter eaten for breakfast has usually been between four and five ounces. If sweets were desired strongly, he has eaten a few dates, or a fig, or perhaps an ounce of sugar in some pure form. Occasionally an equal amount of bread was substituted for the wheat. If I can possibly feel satisfied without the wheat, or the bread, do not hanker after it strongly, it is left out, only fruits being eaten. Most people would think this no meal at all. And still the writer has worked hard and long, with no thought of hunger, except for a few minutes perhaps right after the meal, until 4 P. M., with no thought of being tired, on this exceedingly small amount of plain, nutritious food well chewed. And he can and does go right to work after breakfast, with head as clear as ever; in fact, at his very best every minute of the

day. He has done today easily twice what he possibly could ten years ago in one day and is as fresh now as when he started. Oh, I know how hard it will be for some of you to believe this, but I am doing it right along and know.

SUPPER.—At night a little more food is eaten, but not much, as for best results next day great care must still be exercised. At 4 P. M. I may eat a baked potato with butter on it, no salt, two ounces of bread and butter and one and one-quarter pounds of fruit. The dry matter in supper being between six and seven ounces. Occasionally an ounce of walnut meats are eaten, if craved strongly, but often not more than once a week. The protein is being cut to the lowest possible safe notch. Can you believe that a large man can do the best head work he is capable of and some three hours a day active physical labor and hold his own fully in weight on twelve ounces only of dry matter in foods named? I could not a single year ago. I have watched my weight carefully day by day, also the looks and circulation of blood. No mistake has been made; no after-clap coming. I never felt better in all my life. Sleep, in practically outdoor air, is perfect. It hardly seems a minute from time I drop off until I awaken and find it time to get up. And never before in all my life have I got out of bed every morning feeling so thoroughly rested and vigorous. It is great to sleep like that, my dear friends, and load up with strength to the point where not a bit more can stick on.

NO GUESSWORK.—WHAT SELF-CONTROL WILL DO.

There has been no guesswork about these figures. I have delicate scales to weigh food, even to quarter ounces. Larger scales are in the cellar where I pass them every time I go down to fix the furnace. After being unusually active physically some days I have once in a while eaten a pound of dry matter in a

day. But the rule has been as stated above, not over twelve ounces. By dry matter I mean what the materials would weigh if all the water was dried out in an oven. The tables give the water in each kind of food, you know. This is the only way to be at all exact, as fruits, potatoes, etc., contain such a large percentage of water. Even bread is not dry by any means, after standing three days. You will notice that I eat about a pint of water at each meal in fruit and other food. So I only need to drink a quart of water a day besides. It is not seven full hours since I began my work. I have worked to the utmost limit without a pause. But I am as fresh as when I began. Had I eaten one ounce more dry matter this morning I could not have given as good a report. I should not have had as much strength for work. On the twelve ounces a day I am doing my very best and holding my own fully, gaining, if anything. Wonderful, isn't it? Isn't it worth our while to know the truth and to make use of it, practicing a little self-control at the table, so as to keep always at our very best, strong and vigorous for business, or for pleasure, through a life that will surely be much longer as the result?

WHAT TO DO WHEN ANY HEALTH PROBLEM TROUBLES YOU.

Some questions may come to your mind after you have read, re-read and studied this book. There may be some points that are not entirely clear to you. In trying to fit the general plan of right living to your conditions problems may come up that bother you. You may read advice given in reputable papers or magazines that disagrees with what is taught in these pages, and then you hardly know what to do. In all such cases come to the editor of "Health Hints," published each week in *The Practical Farmer*, Philadelphia, Pa. He will try faithfully to help you out in any matter which is of general interest. There are absolutely no advertising schemes whatever in these "Health Hints." They, as well as this book, are written

SOLELY IN THE INTERESTS OF THE PEOPLE.

Do you realize how much this means to you? In one of the health magazines that comes to us the editor is often pushing in indirect ways an unnatural arrangement for washing out the bowels, in the manufacture and sale of which he is personally interested. He is doing this instead of telling people plainly how to live so there will be no earthly need of his syringe. Another editor puts in a full page advertisement of useless and senseless doses to take, because there is a chance to use his great reputation to make money that way. At any rate, that is the way all these schemes look to me. Still another editor is often telling people that there are no two alike, that each one needs special treatment, etc., all tending to draw patients to him privately, when he knows that nature will cure any case that is still curable, if we only give her proper air, water, sleep, food, exercise, sunlight, etc., so she can have a chance. And so it goes. The editor of "Health Hints" stands almost alone in having absolutely nothing to sell. His services are yours for the simple asking. But please do not ask for private replies. Through the paper, so he can reach many thousands with each letter, the writer will be ever ready to help you all in every way possible about keeping ideally well and enjoying yourselves through a long life.

Your friend,

T. B. Terry.

